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AUTHOR Tennyson, W. Wesley; And Others
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ABSTRACT

Basic career needs, management tasks, objectives, human development rationale, and implementation strategies for a career development education program are discussed in terms of the Minnesota Career Development Curriculum (CDC) project. Oriented toward teachers and counselors, the document contains six chapters: (1) The Challenge, presenting an overview of career oriented education in terms of the interrelationships between school, society, the labor market, the future, and students; (2) In Touch with Reality, discussing socioeconomic and cultural values and career expectations held by the general population and their implications for counselors; (3) Forecast of the Future, viewing future technological and economic changes in terms of present labor market conditions, occupational patterns, and educational requirements; (4) A Conceptual System for Career Development Education, elaborating on a conceptual structure for the definition and development of career development education; (5) A Process Curriculum for Career Management, presenting the CDC as a process model focusing on a sequence of personal competencies (career management tasks) to be mastered in four steps of the student's development; (6) Strategies and Resources for Implementation, discussing delivery systems and resources. Career management tasks (K-12 and post high school), instructional objectives (K-12), and an annotated resource and reference list are appended. (LH)

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EDUCATING FOR CAREER DEVELOPMENT

by

W. Wesley Tennyson
L. Sunny Hansen
Mary K. Klaurens
Mary B. Antholz

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PUPIL PERSONNEL SERVICES
DIVISION OF INSTRUCTION
MINNESOTA DEPARTMENT OF EDUCATION
ST. PAUL, MINNESOTA 55101
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PREFACE

In 1960, the Minnesota Department of Education published a monograph entitled *The Teacher's Role in Career Development*. The monograph, written by the senior author in collaboration with Thomas Soldahl and Charlotte Mueller, was revised in 1965 and given wide distribution by the National Vocational Guidance Association. While it is impossible to evaluate the impact that early publication may have had upon teachers and counselors, the positive response accorded it through letters, reviews, and invitations to address diverse audiences most certainly had an influence in directing the professional interests of several faculty members at the University of Minnesota.

The present publication retains much of the flavor of the earlier monograph, but also reflects advancements which have occurred in the field of career development education, including the developmental project underway at the University of Minnesota since 1968. The terminology we use today is different from a few years ago, and while semantic changes often prove bothersome to the educator and lay person, subtle differences in labeling and the use of the "in word" forces each of us to clarify and advance our thinking. Thus a use of the term of career guidance challenges our traditional concepts of vocational guidance. The concept of career education forces an examination of the interface of vocational education, general education, and career guidance. And when the authors introduce the term career development education, as we have done in this present publication (without any claim to ownership of the term), this hopefully has the effect of causing career educators to look at what they are advocating and to feel some obligation to provide a substantive justification for the programs they offer, based upon sound theory and research.

That part which has been retained from the earlier work is mainly a set of assumptions. Without discounting the important part that counselors contribute to career development education, it seems sound to say that career development is going to be facilitated or not in principle by what classroom teachers do and what occurs in the curriculum. At the same time, we assume that counselors have an unique contribution to make in curriculum development by working with the teacher. We make this assumption by also assuming that the employment of counselor skills in educational institutions has too often been misdirected, either by personal choice and individual need or by institutional choice and need. Career development education suggests that we look at student needs first, and this applies equally to counselor, vocational educator, and general educator!

The earlier monograph assumed that personal development and career development are intimately related. Educators, whether teachers

or counselors, cannot deal with an aspect of development without considering the whole person and the way individual aspects of one's development interrelate. Personal conflicts and developmental problems affect career decisions and management. At the same time, career decisions affect each of us personally and present dilemmas and problems which encroach upon our personal lives. We define ourselves literally through our engagement in significant activity, whether we are paid for it or not.

The Minnesota Career Development Curriculum project (CDC) has been an interdisciplinary effort involving faculty and students from counseling psychology and vocational education, along with some 300 educators, K-14, who have used or reacted to the conceptualization and materials produced. It is not possible to acknowledge the many educators who have employed the CDC conceptualization in program development, curriculum materials development, the making of educational television films, and the conduct of inservice education. We do wish to mention especially several colleagues who have made personal investments in the project. Professors Warren Meyer, Richard Ashmun, Howard Nelson, Jerome Moss, and Henry Borow have in various ways supported and encouraged our effort over the years. Professors Richard Kimpston and Frank Ryan gave freely of their time to consult with us about curriculum materials under development. Reynold Erickson, G. Dean Miller, Len Kodet and especially Jules Kerlan of the Minnesota Department of Education have continuously shown their confidence in our work through their interest, financial support, and consultation.

In earlier stages of the CDC project, Rick Thoni was a member of the team and had an instrumental part in shaping the development of the project. He later employed the theoretical rationale in a tangible way by writing a teacher resource guide for the senior high school. Lois Carlson Depelheuer applied her special interest in affective education to the production of a self-concept resource guide. Altogether seven teacher guides for senior high were produced by the staff.

Several graduate students later joined the CDC team to help develop curriculum materials for the junior high level. Assisting with the production of resource guides designed to infuse career objectives into various subject areas were Marion Asche and Don Irvin, who together produced a resource guide for industrial arts. Julie Sansted focused upon home economics, and Paul Anderson and Phyllis Kragseth wrote a guide for junior high English.

The staff also recognized the importance of teacher education and the part it must play in career development education. Project TECE resulted in the production of three modules designed to implement career development concepts in preservice teacher education. Mary Spiegelberg and Fred Wall were principal writers of modules aimed at

undergraduate teacher education. Don Kohns and Becky Timm worked closely with the team on this part of the project, giving of their ideas and reacting to the materials under production.

Most recently, Sharon Strom has joined the team. She brings an interest in life-span development to the project, and is presently attempting to extend the CDC conceptualization to the immediate post-high period of development. Mrs. Strom has also read and reacted to first drafts of this monograph, offering constructive suggestions with regard to substantive content, as well as making editorial suggestions.

While the significance of the CDC project will be judged by the content produced, the authors feel that a more important significance can be found in the process of carrying it out. Inherent in that process has been the focusing of professional interests, the bringing together of persons from diverse interdisciplinary backgrounds, and the feelings of satisfaction in seeing a reasoned process of conceptual thinking applied and tried-out in practical ways. The process has been fun and it will undoubtedly continue to engage us for many years.

The Authors

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THE CHALLENGE

A vital problem today in the United States is the quest on the part of millions for a higher quality of life and living. It is not the quest itself that is significant or new, but the urgency expressed by so many people in so many different ways. The problem was raised to a consciousness level during the 1960's, and the social characteristics of that decade continue as viable forces for change in the seventies. What was that period like?

The decade of the 1960's was a time of

——awakening group consciousness, of indignation and outrage fed by a spreading realization of the pervasiveness of social and economic inequality and deprivation; of insurgency among blacks, Chicanos, and native Americans; of sharp challenges by women liberationists, youth counter-cultures, conservationists, and consumer protection groups; of the championing of the values of the new individualism and "Consciousness III;" of the erosion of popular trust in major institutions — business firms, organized labor, Congress, the executive branch of federal government, the military, the courts, the press, the schools . . .; of breathtaking social, economic, and technological change; and of the outward thrust of a new hedonism, aptly characterized by Martha Wolfenstein as the "fun morality" (Borow, 1974, p. 4).

Whatever else may be said about the 1960's, people in all walks of life were raising a hue and cry for a new individualism. Individual development and self-betterment was the message, and the young people were clear in presenting it — "recognize your uniqueness, tune in to your feelings, learn to think well of yourself, and discard masks and charades in favor of authenticity and of mutual sharing of inner experience with others" (Borow, 1974, p. 8).

It was, indeed, the student's voice that communicated so passionately what was happening, that something important was happening, had to happen. Take Rusty for example, a young graduate student about thirty years of age. In a moment of introspection Rusty said:

——All my life I have been told that who I really am is not quite acceptable for one reason or another. To begin with, it was my size. When I was younger, I was even smaller for my age than I am now. Although I was good in sports, I was con-

stantly reminded that any dreams I had about becoming great were ridiculous — I was too small. That was when I began pretending I was six feet tall. In my own mind I tried to make decisions that John Unitas would have made, for that is who I was.

Why do men pretend to be what they are not? Perhaps it is because they, like me, found much evidence that who we are is not worth being. We live in a culture of "All-American" standards, and with these standards only the best have the right to participate. In school, inferior talent is allowed only with the condition that one admits his inferiority. Even in those areas in which I was confident, I was either reminded of my weakness lest I become too confident, or was confronted and compared with someone who was better. So you see, it is more comfortable to be a good fake than a bad reality. I continued to pretend.

As I look to the future, whether this world will have me or not is no longer an issue. The point is that I cannot continue to *be* something or someone others would have me be. When I pretend to be someone else, I commit spiritual suicide. I can only *be* when I live in relation to who I really am, and any significance I ever hope to find must be found in the context of this *I* who it seems is not worth being.

Rusty's problem is typical of many individuals today, of all ages. It is a problem of career development.

CAREER DEVELOPMENT EDUCATION

The school, as much as any institution, is affected by the social factors fomenting change. Whereas traditionally the social utility of education was the prime value, the school is now pressured to think seriously about the personal utility of education — to become concerned about relating learning to the lives of individuals. For too long education has fallen short in helping the student see how skills and concepts being taught relate to the larger context of human behavior and social aspiration in the work and leisure worlds.

Critics of education suggest that expectations of the schools are too often unrelated to the expectations students will face when they leave school. In the last few years thousands of college graduates have not been able to find employment in their field, and Labor Department figures indicate that eight out of ten jobs of the next decade will not require college education. Futurists speculate about the human skills to be needed in the year 2000. It would seem that students too often are prepared for a static world when they should be prepared for a world in flux.

The implications for career development education are enormous. It is no longer sufficient to equip a student with the skills required for a specific occupation, for that occupation may not exist ten or twenty years hence. Rather, students must be given the means to adapt to a changing environment. They must become aware of the *process* of education in addition to *content*. They must focus not merely on choice of an occupation but on how to choose, learning not merely to make wise decisions but to make decisions wisely. They must come to terms with themselves as growing, changing persons in an ever-changing environment.

This process can be facilitated through a systematic approach to career development, incorporating appropriate career education interventions in the classroom and curriculum. The approach suggested goes beyond merely helping students obtain occupational information or choose a job or college. Career development education becomes a vehicle for unifying curriculum around student needs. It offers the potential for humanizing the school by providing students with greater opportunity to experience *who they are* as persons and to change the school in ways that facilitate their development into vocationally mature human beings aware of and prepared to do something about the major social issues facing our nation.

A career education curriculum is compatible with the overriding goal of education, which should be self development. Such a curriculum is based upon assumptions that the primary tasks of the school are to develop positive self-concepts, help students obtain control over their lives, and maximize individual career possibilities. It provides learning experiences which help individuals examine the meaning they want work to have in their lives and the life styles they envision — the needs they have for leisure, self-esteem, community involvement, for family relationships, for security, for adventure, for status, for power, for self-fuifillment.

In other words, the career education curriculum asks *not* "Where do Johnnie and Janie best fit?" but rather "How do work and leisure fit into the kind of lives Johnnie and Janie want and the kind of persons they perceive themselves to be?" Not just "How can they fit into jobs which exist, but how can they help create jobs which fulfill their personal needs and also contribute to the world's unfinished work: the improvement of society, the resolution of contemporary social issues, and raising the quality of life for all?" This is the liberating and humanizing potential of career education.

A concern for career development, as one aspect of an individual's total development, is a concern for realization of individual potentialities. Appropriate attention to this development through the curriculum will serve the individual, and ultimately society, in several ways:

First, by developing within students integrated and more adequate pictures of themselves and their roles in the world of work; Second, by promoting maximum incentives for achievement, particularly by associating the values of students' studies with that of their vocational and personal aspirations; Third, by creating an understanding of the relationships between work, leisure, family and community in formulating life styles.

Educating for career development cannot be the exclusive job of any one person on the school staff. All must share the responsibility, including counselors, teachers and administrators. But in the final analysis the success of this endeavor will depend largely on classroom teachers working in conjunction with the counselors.

CAREER DILEMMAS AND SOCIAL ISSUES

It is evident that the schools of today have a vastly different job to do than they did a generation ago. We are reminded every day of the social problems which make it imperative that we seek educational solutions beyond the discipline-centered solutions of the past. Many of these social issues — e.g., housing, civil rights, ecology, poverty — really revolve around occupational problems or career decisions which create dilemmas for the individual. These problems are described briefly below.

Changing Meanings of Work in the Human Experience

The message given is that people are becoming more alienated from their work, that they are not getting the satisfaction expected, that they expect what Levenstein (1973) calls "psychic income" as well as financial income. The mass media are filled with articles and programs about the meaninglessness and dehumanization of work. Another kind of message is coming from those students who are not accepting traditional work values. They are saying, "Don't force me into your traditional jobs; help me find work that will enable me to change and improve society. I want activities and a job that will make society a better place. I want to be judged by a human identity, not an occupational label." These students are concerned about the roles various workers play in fulfilling social and economic needs. Some are saying that while the role of a worker in making a contribution to society is important, it is also important to consider the roles one may play in family, politics, and community in relation to work. Indeed one sees today a variety of work patterns influenced by different work values, changing leisure patterns, and re-examined needs and goals.

A Changing Labor Force

A major concern is one heard many times — that 80 percent of the jobs of this decade do not require a college education — this at a

time when the great American dream of college for everyone still seems to dominate the American imagination. Americans recently have become acutely aware of problems associated with employment in which there is a shortage of skilled workers in some fields, but overtrained and underemployed workers in others. Another change is the increasing gains for the Black person in the labor force, as well as the fact that more women are entering the labor force and are also asking equal opportunity in education and employment. The trend from a goods-producing to a service-producing economy, from production to human services, is well known. Social scientists have also shown that technology is causing major changes, with some jobs disappearing, others being created, and the possibility that the self-management tasks and work tasks facing individuals in the year 2000 may be very different from those of the 1970's.

Dropping Out and Dropping In

In spite of the many programs of the sixties to provide skills, jobs, and training for those unprepared to enter the job market (Neighborhood Youth Corps, Manpower Development and Training Programs, Occupational Information and Skills Centers, and the like), the dropout problem is still very much with us. It is not only the high school dropout that is a matter of concern, but the needs of the college dropout are increasingly being highlighted as well as those who complete a degree and have trouble dropping in. It is a generally known fact that of the 40-50 percent who typically go on to college, only half obtain a college degree, the others left to flounder without alternative goals or guidance. Former Education Commissioner Sidney Marland (1972) charged that the net result is that 80 percent of our school population does not get adequate vocational guidance and placement assistance. Recently we also have seen a third kind of dropout, adult workers or "corporate dropouts" who are tired of the rat race in which they find themselves and want new life styles. Increasingly this kind of mid-life career shift is seen among workers who are not willing to spend their lives locked into a job or company so they can obtain the 50-year watch!

Students "Walled-Off" from the Work World

With employers' insistence on at least a high school diploma for most jobs, we have seen many youth isolated from the work world. Our traditional programs have forced students to choose early between academic and vocational curricula, with the result that vocational students have been the only ones given a direct exploratory experience — which unfortunately has been looked upon as something you do if you cannot handle the academic curriculum. This walling-off has resulted in an unfortunate dichotomy in which work is something for the employment-bound, and college-bound students defer as long as possible think-

ing in vocational terms — at least until recently. It has caused a tracked, fragmented curriculum which has not capitalized on the possible ways of integrating academic and vocational subjects to make school more relevant to learner goals, plans, and needs. Many human beings in the school are tired of these walls and want them down, and career education speaks most forcefully to this problem of breaking down the walls that serve only to obstruct communication and the development of human potential.

The Information Deficit Dilemma

One of the things learned through career development research is that students and often adults make career decisions with an information deficit. Katz (1963, p. 25) has said, "Students do not know what [information] they need, they do not have what they want, and they cannot use what they have." There is considerable evidence, for example, that they have a paucity of information about occupational and educational options; that they often have misinformation; and that they make career choices from a very limited range of occupations often based on myths, glamour, and stereotypes. Most students have not had opportunity to obtain accurate, adequate information about themselves, their aptitudes, interests, and values — information about what they can do, what their priority values are, and how they want to act on those values through the choices and decisions they make. Often the information they receive is limited in communicating images of the life styles associated with occupations and the psychological meanings of work in the life of the individual. Moreover, many young people do not have access to informational resources or worker role models through whom they can get this kind of exposure. Most important is their need to be informed about the *process* of career decision-making, to discover that it is no longer a one-shot, one-choice-for-life decision but a series of developmental decisions and roles starting in the elementary years and continuing into retirement.

The Special Needs of Bypassed Populations

The "band-aid" kinds of operations of the 1960's barely touched the surface of minority problems and dealt with remediation rather than prevention. As Feldman (1967) has pointed out, the schools are responsible for preparing all individuals for full participation in the economic life, yet many economically deprived individuals have not been equipped with the skills, the competencies, the sense of agency, or the positive self-concepts which will allow them to achieve a career and become effectively functioning human beings. The reluctance of the schools to relate curriculum to the world of work has done a special disservice to those who have been outside the opportunity structure. Career education provides a means for bringing education and work closer together.

Career development needs of women have received little attention, although this too, is beginning to change. But the facts about women in the labor force, the increasing research on women's career growth, along with the rising concern expressed through the women's movement, make explicit the need for women to know the many life style options, to be able to choose freely from a variety of roles in life, and not to be forced into one mold or career pattern for all. The creation of career education programs attuned to the changing role and status of women will also dramatize the impact that feminism is having on the family and work roles of men.

These several career-related problems reflect the need for major educational changes. Career education speaks directly to these problems.

ARE FUTURE JOBS PREDICTABLE?

With technological developments continually creating new jobs and rendering old ones obsolete, it becomes increasingly difficult to predict the specific job a student may be called upon to perform as a working adult. In the 1980's many vocations will spring up as the world responds in new ways to overpopulation, food shortages, violence, fear, and the scramble for limited resources (Silha, 1974).

Added to this growing multiplicity of pursuits from which young people may choose is the further complicating fact that many occupations are characterized by low visibility, i.e., the very nature of the occupation and its functions are not readily apparent to the individual. One may wonder, for example, whether students selecting engineering for a career really understand in advance the functions performed by this worker, let alone the social problems and psychological factors that delineate the specifications of the occupation. Counselors are well aware that young people frequently have only the haziest notion of what a toolmaker, physical therapist, pattern maker, actuary, credit manager, or laboratory technician actually does during his or her working day. Boys and girls, if unaided, can hardly be expected to acquire an understanding of these complex relationships of occupational life.

In former times, when occupational life was less highly specialized, parents assumed a responsibility for informing their children about careers. Most parents today, however, find themselves severely limited in vision of the breadth and variety of opportunities possible for their children. Lack of understanding by parents toward this aspect of the child's education has led to a growing demand for greater responsibility on the part of the school to assist young people in their career development.

The task is not a simple one for our schools, but some of the procedures and strategies for facilitating this development are becoming known. There is a rich opportunity here for creative imagination and

experimentation through guidance and curricula to relate school subjects to student goals and societal options.

GIVING ATTENTION TO CAREER DEVELOPMENT

Although there are many and varied definitions of the terms career and career development, the authors prefer the definitions given in the position statement prepared by the AVA-NVGA Commission on Career Guidance and Vocational Education (1973). Thus, that document states:

> ——*the term "career" means a time-extended working out of a purposeful life pattern through work undertaken by the individual. Career can easily be differentiated from the term "career development", which refers to the total constellation of psychological, sociological, educational, physical, economic and chance factors that combine to shape the career of any given individual (p. 7).*

"Career education" may be thought of as the educational interventions by teachers, counselors, parents and community designed to further a person's career development.

The concept of career presented here assumes a broad view of work, and it includes both occupation and the life style surrounding it. The way individuals view themselves determines to a great extent how they view life. The keystone of career development theory is Super's precept that in choosing an occupation one is, in effect, choosing a means of implementing a self concept (1957). Self concept is a powerful determinant of one's career choices and behavior; career, in turn, has a profound effect upon the self.

Several principles of career development have implications for the career education program. First, career development is a process by which the reconciliation of the individual and his or her work environment takes place (the school provides the first formal work environment for the child). Career development requires continuous assessment and reintegration of self in relation to environmental alternatives. It also requires assessment of the ways in which work relates to other important aspects of life — e.g., family, leisure, community participation and to one's values and needs.

Second, career development is subject to the principles of general human development — that is, it is similar for all, it proceeds from general to specific, it is continuous, it proceeds at different rates, and it progresses through fixed and sequential stages (Hurlock, 1956). The development of human beings is at the core of the career education program.

Third, Super's precept of multipotentiality — that each person has

the potential for success and satisfaction in a number of occupations — attacks the assumption of an ideal occupation for every worker and that guidance must help the individual find the true fit. The multipotentiality concept frees the individual from the fear of making the "wrong" choice (a view which pervades the traditional Parsonian approach or "matching theory"). It increases the options available to the individual. The individual's responsibility is no longer centered on a crucial single decision point but extends throughout one's career life and may cover several decision points from early childhood throughout life (Antholz, 1972).

Fourth, maximizing the individual's control over his or her own life and future is an important tenet of career development. Tiedeman has called this a "sense of agency," a feeling that one "can do," that one can determine what he or she is to become. This means the students must obtain the skills with which to choose and plan, that they must learn *how* to choose as well as *what* to choose. Katz (1973) suggests that the basic choices of career are choices among values and value systems — that each individual makes self appraisals, evaluates past performance, and decides and plans in ways that express one's self concept.

THE NATURE OF THE CHALLENGE

Where individuals have the responsibility and freedom for making career decisions — as is increasingly essential in the American way of life — they need information and appropriate experiences to aid them in their career development. It is unfortunate that some parents have wrongly interpreted the concept of "freedom of choice" to mean adoption of a "laissez faire" attitude toward the vocational considerations of their son or daughter, with the inevitable result that many students, even at the time of graduation from high school, are barren of any ideas from which to choose. Perhaps parents have found in this important democratic concept a means for excusing their lack of initiative in a difficult responsibility. However, even if parents were to assume more responsibility, it is unlikely that many of our young people would encounter the realities of more than a few different occupations. Today's children and youth by themselves have neither the means to comprehend the intricate relationships of occupational life nor the knowledge of procedures through which adequate information may be secured. Nor have they received adequate assistance from the schools in relating these to their values, interests, and abilities.

The educational challenge is clear. Most certainly the school does not and cannot make career choices for individual students, but it can and should encourage them to see the necessity and to accept the responsibility for planning their futures. The very fact that education is a continuous process covering a large span of an individual's life, at a time

during which boys and girls gain increasing self-awareness and orientation to society prior to seeking their own way in the world, makes the school the most important single agent of career development. Super (1957, p. 310) expresses this point of view well when he says, "the school is in an unique position to guide vocational development, bringing the resources of society to bear on the individual, supplementing the more limited resources of the family to ensure an orientation to careers and a self-appraisal which will make the fullest possible use of individual talents." Society has placed at the very doorstep of our educational programs the challenge of furthering the development of our students' potentialities by helping them to plan wisely in the light of all the knowledge that can be mustered about themselves and about the world in which they will work and live.

Fulfillment of this challenge means viewing guidance as much more than just a "point of view." An educational philosophy based on the existence of individual differences and one which emphasizes the unique needs of each student is fundamental, but it is not enough! The school must have a definite program of "career education and planned exploration," with provision for a continuous and systematic appraisal of students' abilities, interests and values; realistic information and varied learning activities which will help orient students to the world of work and educational opportunities; and systematic counseling and educational experiences to assist them to use these acquired knowledges in understanding themselves and in testing the reality of their plans. This program will aim to further the career development of young people, but in doing so it will be furthering their personal development also, for the vocational framework provides the means for assisting all individuals to develop and implement adequate, satisfying, and realistic concepts of themselves. Such a program requires some people with special knowledge and skills, but recognizes the classroom teacher as the one most important person in the pupil's development.

The Teacher's Part Is Important

Teachers are already contributing in various ways to the process of career development as it evolves with their students. Those who are sensitive to students and their developing personalities have always concerned themselves with assisting boys and girls toward optimum growth, and these teachers in many ways help students to understand and accept themselves.

Miss L. helps Tom to realize better what kind of a person he is when she chats with him about superior abilities and helps him find appropriate outlets for his talents instead of letting these outstanding qualities lead him into inappropriate avenues or fields. Or, more subtly, the English teacher, who has observed Ellen's performance as manager of the school newspaper, notes that she demonstrates a type of leader-

ship ability predictive of success in business. He helps Ellen realize more clearly what things she values most in life when he raises the question of whether or not she has ever seen herself as a persuasive person, and then spends some time discussing this revelation with her. Mrs. T., the social studies teacher, contributes in much the same way to students' self-understanding when she has them read the life of Theodore Roosevelt and discusses this great man's positive and negative qualities with the students, and follows through by helping these young people think about and relate these qualities to themselves. An elementary teacher facilitates the career development of one of her students when she provides Tommy success experiences which cause him to feel good about himself, which help him clarify his emerging self and formulate an identity that serves his needs at the moment.

All classroom teachers, irrespective of the subjects they teach, also have some influence upon the developing work attitudes and career choices of their students, though it is often at a semi-conscious level. Many teachers discover quite early in their teaching experience that the introduction of "world of work" activities and experiences into their subjects enlivens student interest, and, if done systematically, motivates a desire for learning.

There is no conflict between developmental and guidance values when teachers concern themselves with the career objective along with the development of subject-matter skills, attitudes and abilities. Academic knowledge and skill development are facilitated when teachers give their pupils opportunities for testing and exploring the world and themselves in relation to it. Career and work have significance for education, at all levels, and the experiences that an education provides, whether good or bad, inevitably influence the careers and future growth and development of individuals.

How are teachers doing it? Miss Adams is a fourth grade teacher. She is interested in acquainting her pupils with the occupational life of the community, and so she has taken the course of study for her grade and correlated occupational information wherever it fits. She has aroused the curiosity of the children about vocations by using illustrated books which depict occupational life. She has taken her pupils on field trips to local industries, and she has encouraged the children to role-play characteristic occupational groups in the community to develop awareness of occupational stereotypes. When taking the children on a field trip, she focuses their attention on the workers, what they are doing, and how they feel about what they are doing.

Mr. Darrell teaches biology. He discusses with his students the types of jobs to which training in biology might lead, the time and amount of education required to gain the necessary skills and knowledge, and the problems of workers in these and related fields. He tries to give his

subject a more substantial connection with life and the community. His students become acquainted with the mode of living characteristic of people in the sciences.

Mrs. Holcomb has focused upon trying to help her children to understand the social contribution of all kinds of work. She does this by inviting workers to her class and having them talk with the children about their work and how they feel about it. She tries to help her students understand that dignity resides in the person and what he or she brings to the job.

Underlying this point of view is the assumption that the teachers are qualified to help students get a fuller understanding of the occupational implications of subject-matter disciplines. Teachers themselves must become better educated about occupations and job opportunities in their communities. If they have not already so prepared themselves, each teacher should think through the vocational values inherent in the subjects they teach and should use this knowledge in helping young people become conscious of vocational life around them. Vocational objectives of every teacher, regardless of the subject taught, are threefold:

1. To provide experiences which will enable students to gain a fuller awareness and appreciation of the occupational avenues growing out of the particular subject and how the subject-matter is used by workers in different occupations.
2. To contribute to the student's testing of reality by showing the relationship between the requirements of these occupations and the education or training needed to meet them.
3. To develop attitudes of respect for and appreciation of the social usefulness of all types of work to which the subject may lead.

Counselors Provide Valuable Inputs

Originally counselors, with specialized tools different from those of the teacher, were added to school staffs to assist in helping students realize more fully "who they are," "what they think about themselves," and "what sort of persons they would like to be and can be." The AVA-NVGA Commission on Career Guidance and Vocational Education (1973) identifies the counselor or guidance specialist as having a central coordinative function in career education, but not all writers agree on this point. Irrespective of the leadership question, the counselor's part in the career education program is extremely important.

Because of their training in the social and behavioral sciences, counselors potentially can make an unique contribution to the career education curriculum and the efforts of teachers. To realize this contribution, however, counselors must become more involved with the curriculum

and the learning activities provided through the classroom. We make the assumption that counselors possess skills that will enhance the learning process.

Young people are influenced by many forces in the world about them; it is important that they come to appreciate the various outlets and realities that exist for them as a result of their individual needs, interests and aptitudes. The counseling interview, with its focus on helping persons discover their abilities and develop the capacity for decision-making, plays one part in achieving this goal. On the other hand, the career guidance function can never be realized fully through person-to-person interviews alone; it must be supplemented with group procedures and classroom interventions. Evidence from several studies (Cuony and Hoppock, 1954; Stone, 1948) suggests that optimum career decisions and greatest job satisfactions result when both individual counseling and group orientation procedures are utilized. The counselor, along with the teacher, performs a valuable service in guiding youth when he or she augments the curriculum with small group procedures and clasroom interventions such as Life Planning Labs, Problem-Solving Job Simulations, Communications Groups, Shadowing Experiences, and the like.

IT MEANS A GREAT DEAL TO THE STUDENT

We are coming to recognize that one's career and the choices it entails is really a process that is developmental in character. This process is related to the past experiences of the student, experiences in school as well as out, and these experiences have a determining influence on one's future development as a person. It is understandable, therefore, that teachers and counselors as "key persons" in the student's life, function in a very significant way in the young person's vocational development.

Just what does it mean to the student when interested teachers, working in consort with counselors, provide experiences which link school subjects with occupational life? When the students see the relationship between their studies and their career decisions, they will, of course, often be motivated to get as much as they can from their elementary and high school education. But beyond this, they will begin to relate this information to a growing richness of perceptions of the world of work, and from these experiences they may develop meanings about themselves and the overall milieu in which they live and will work. And through this exploratory process the young people will collect information, most of which may have no importance to immediate decision-making, but all of which serves to help them test the reality of their evolving self-concepts. When students are called upon later to make choices about their futures, they will, as Super suggests, likely be more ready and able to do so.

IN TOUCH WITH REALITY

. . . and it happened on the Animal Farm . . . after the pigs had ascended to power, the commandment was changed from, "All animals are equal" to:

ALL ANIMALS ARE EQUAL
BUT SOME ANIMALS ARE MORE EQUAL THAN OTHERS

—George Orwell

Not long ago, a teacher was overheard to admonish his students, "All work has dignity. Even if you're a truck driver, that work has dignity." The attitudes which lay behind this teacher's remark reflect several cultural contradictions in modern society which tend to splinter the social structure and divide people's minds. Often the student's career development is complicated by the influence of adults whose thinking has been affected by these contradictory elements. There is real need for teachers and counselors to understand their own socioeconomic and cultural values as they relate to our occupational and societal structure if they are to be most helpful in guiding their students.

WHAT ARE YOUR BELIEFS?

Through both the curricular and co-curricular programs, the school provides a work world for the developing young person. Students must adapt not only to the structure of the workplace, but to relationships with a new set of authority figures, their teachers. These are new models for the child, and under the guidance of teachers pupils learn rules for relating both to supervisors and to peers, or co-workers. Patterning their behavior after these new models, attuned to the nuances of attitudes which they portray, the personalities of children may be molded by the values and attitudinal forces represented in the school environment—an environment which may or may not reflect the social milieu in which they live, or the one in which they will eventually assume occupational roles.

These attitudes of teacher-models often take the form of expectancies, some obvious and others more subtle, which are held out to youth. Let us consider a few of these expectancies.

The American Career Stereotype

We are a product of our past, and our history reads like an "Horatio

Alger" dream. The experience of pushing into an untamed wilderness and through courage, strength, and individual resourcefulness conquering a continent has left its impact on the life philosophy of the American people. Ours has been the conviction that all barriers can be surmounted and success will be inevitable, though the road may be hard and long. The necessary ingredients include a proper amount of character and an equal portion of initiative and hard work. Olshansky (1954, p. 355) said it this way: "And for most Americans success with the associated symbols of wealth and prestige is one of the expectancies . . ." It is our observation that children learn early the real meaning of this expectancy, namely, that to be sucessful is to be blessed with the cradle of respect!

It is perhaps natural that this element of frontier ideology should be carried over to the present day. And over the intervening years, education has come to be seen as an essential element in gaining success. Since this stereotype appears to be especially stressed within the middle classes, one might expect that a majority of teachers, with their middle class value orientation, would encourage young people to accept this concept as the means of obtaining the good things in life. The worship of success in our culture leads to an interest and value emphasis focused upon the prestige occupations and prestige schools. In their admiration for earlier society and its accomplishments, parents and teachers assiduously implant the ideal of individual success by playing up the cases of stereotyped fulfillment found in historical, legendary and contemporary life. In these ways the career stereotype itself comes to stand as a model for development of the young person's vocational and social aspirations.

So well entrenched is the "individual success story" in the thinking of educators that most of us would find it difficult to accept the idea that as a reality conception this cultural expectation holds only remote possibility of attainment for a sizable number of our students. Yet to do otherwise is to ignore significant personal and situational factors, such as ability, luck, family connections, and limitations on the number of persons who can be absorbed at certain levels of the occupational structure. Teachers and counselors must realize that these factors weigh heavily in determining one's so-called ultimate success. But far more important than this, they should consider whether this concept of success — wealth, prestige, and a college degree — is the only acceptable goal for young people. And in the course of examining this, they must ask what happens to those who fail to attain this success and who, as a consequence, are unable to achieve respect.

Social Class Expectancies

Elements of the career stereotype are reflected in the expectancies of the separate classes. In all classes, parents want their children to have life better and easier than they did, which, for many, translates to up-

ward socioeconomic mobility. As an example, one high school seinor told the counselor that his father was insisting that he train for a profession, while the boy really wanted to become an electrician. It seems that the father, himself an electrician, had over the years come to resent his struggle for success and status. The father failed to realize that his urgent desire to make it easier for his son might complicate the boy's ability to choose work which would give him satisfaction. There are many children who are forced to live with the aspirations of parents who feel they haven't "made it." Some of these children face untold frustration as they strive unsuccessfully to match their own interests, abilities and values with their parents' aspirations.

Even those children who internalize parental aspirations may have difficulty achieving them. Ability considerations aside, the economic conditions of the country have changed. America no longer has waves of immigrants to take over the lowest jobs on the occupational ladder as the previous holders or their children move up. Minority groups and women are breaking the occupational stereotyping which steered them automatically to lower-paying and less prestigious work. As each generation becomes increasingly better educated, it expects more from life than lower-level jobs.

Status considerations figure most prominently in the expectations of middle-class parents. Children are taught that they should work hard and be (or marry) a success, but that success should be achieved in a job that is neither dirty nor involves the use of the hands. Young people soon learn to believe that the job is an indication of social standing in the community and that white collar work is superior to manual work. Yet, at a time when the proportion of white collar workers has already exceeded blue collar workers, we are also becoming aware that there are just as many demeaning and meaningless jobs in the office as there are on the assembly line. In their efforts to emulate the upper class pattern, middle class parents place severe demands upon their children. As Miller and Form (1951) have stated,

> ——In the upper classes this continuance of the parental standard of living is possible as the son inherits the business of his father (or the aid necessary to start his own business) and the daughter is married "well". The middle-income family in trying to imitate this upper class pattern stores up impossible expectations and almost inevitable frustrations for its children because it has no available surplus of wealth or property to provide such a transition. Lacking this economic surplus to provide an "easier life than they had" the parents rely on education to furnish the means of occupational elevation without, it is hoped, the necessity of either long or strenuous effort on the part of the child (p. 600).

School programs, in reflecting the prevailing conceptions held by society, tend to promote this emphasis on life values derived from the tradition of constantly increasing status. One example of this kind of promotion is the case cited earlier of the teacher who spoke disparagingly of truck drivers. For some teachers the occupation of truck driver is unworthy of minds that through formal education have tasted something better. They deny themselves and their students any thought of the possibility that many lives will be lived in jobs comparable to that of the truck driver — and that the life style of a truck driver or other jobs to which society traditionally has assigned lower status may be satisfying and rewarding. Indeed, the most negative thing about such jobs may be our attitudes about them.

The Ladder Upward

At all social levels formal education is viewed as the ladder to be used by individuals in rising above the station to which they were born. The belief is widely held that each advance on the educational ladder may be counted on to further the individual in the job world. This simple faith in education as the magic key which unlocks the door to oportunity has caused Americans to place increasing value on higher education as the means of realizing material and social status. The report of a Special Task Force to the Secretary of Health, Education, and Welfare, *Work in America* (1973) suggests that "the market value of education has driven out its other values. One consequence of this has been to require, needlessly, even-higher credentials for the same work," and the report notes that

> ——the economy itself has not been changing rapidly enough to require or to absorb the spectacular increase in the educational level of the work force. The expansion of professional, technical, and clerical jobs absorbed only 15% of the new educated workers; the remaining 85% accepted jobs previously performed by individuals with fewer credentials (p. 135).

Is College the Road to Success?

Should academic study of the type offered in college be considered the best road to a useful and satisfying life? The answer to this question involves weighing both status and happiness factors.

There is a general assumption that high occupational status is closely related to advances made on the educational ladder. How true is this assumption? Although we have considerable evidence that income is associated with amount of general education, the huge increase in the number of people holding college and graduate degrees has confounded the figures. A follow-up study of 1971 University of Minnesota graduates

(Berdie and Huang, 1972) showed that while nearly 60 percent were employed in professional jobs, around 30 percent held "noncollege" jobs, and 6 percent were unemployed. Twenty percent of all women graduates in this study held clerical or office jobs. Half the graduates were employed in the field they had majored or specialized in, but fully a quarter were working in fields entirely unrelated to their field of specialization in college. Nearly half the men earned salaries of $8,000 or more, while half the women were in the $6-8,000 range, with another 37 percent earning less than $6,000. The figures for nongraduates might be expected to fall off considerably. An early Minnesota study (Pace, 1941) found that among men whose education extended to one, two, or three years of college, only 15 percent entered the professions. The belief that college is a means to a job in a chosen profession at a good salary may be true for some, but is clearly not operative for a great many students.

While granting the limitations on vocational preparation imposed by colleges, many people will insist that academic study at least increases one's chances of achieving happiness in an occupation. Unfortunately, research has demonstrated little or no relation between the amount of general education an individual has received and his later job satisfaction. And for a large number of jobs, education and job performance appear to be inversely related. Workers with less education tend to have lower turnover rates and greater productivity than those with ten or more years of education (Work in America, 1973). Those persons who are working in jobs unrelated to their college majors are likely to show considerable dissatisfaction (Herzberg, 1957).

These studies suggest that college is not necessarily an avenue to success or happiness. Yet the colleges are filled, some say, with kids who "don't belong there." The decision to go on to college is a difficult one. Economic and vocational considerations aside, the college degree still confers status along with at least the possibility of providing experiences which may enrich the individual's life. Young people should certainly be encouraged to consider college as an alternative in planning for the future. But teachers and counselors who guide these young people need to recognize that there are many diverse paths by which persons may realize their potentialities, and that it is the individual's and not society's values which must determine the course taken.

To free each child to be himself or herself, to be equal in the best sense of the word, we must cease to evaluate lives in terms of a ladder of success, with each person assigned to a rung. Surely there are at least as many ways to achieve "success" as there are definitions of the term, and no one means arbitrarily can be deemed the best. The means used to define success can be judged in terms of consequences to self and others. College, then, should not be viewed as a 4-year rung following

high school and preceding full-time work, but rather as an institution through which people at varying stages in their careers may choose to enrich themselves.

The Effect of Economic Determinism

Teachers who will think seriously about the expectancies they hold for students, which have a bearing on students' occupational planning, need also to ask to what extent their values are affected by the current economic thinking of the day. Do the current manpower needs enter into the attitudes which are held toward career decisions?

Sputnik, with its challenge to American superiority in science, spurred an incredible pressure to produce scientists, mathematicians and engineers — many of whom are now unemployed. More recently teachers were in great demand, and again as the needs were met, and the population of school age children began to fall off, we found ourselves with thousands of newly graduated teachers unable to find classrooms. Currently, the push is in the health field. There is clearly a need for workers, yet our mechanisms for forecasting manpower needs are woefully inadequate for a period of more than a very few years.

We may wonder who the hidden persuaders in this situation are. Is it the various mass media alone which serve to encourage students to prepare for the "in" field of the moment? Or must school counselors and classrom teachers examine their own attitudes as they influence the vocational development of their students? The real issue is whether we are to guide people to fit into the economic and social system as it currently exists or, as Esther Lloyd-Jones (1957) said many years ago, provide a situation "as free as possible for the young person so that he — or she — may, insofar as possible, develop all of his or her abilities, eventually making his greatest contribution in the social sciences or through the arts, through philosophy and religion or through literature, or of course, through science." That is, to what extent do we let manpower requirements limit our choices — and freedom of choice — and to what extent do we try to help students make choices and create jobs which will help to improve society and the quality of life, as they see it?

SOME REALITIES OF THE WORLD OF WORK

Imbued as we are with the tradition of the American "dream," it is disquieting to find attitudes and forces within society that operate against the fulfillment of this dream. Because of status and class factors, the "good life" is not equally distributed in the population. Race, sex, religious background, social class position, traditional employment patterns, and other particularistic norms influence to a degree a person's career development. Such norms have an effect upon job distribution, income, security, and opportunity, each of which in turn affects the individual's self esteem.

The realities of the American labor market may be viewed as gross inequities perpetrated upon the individual, as certainly they are for some, or they may be seen as challenges to reconstructing the social system. Educators concerned with the career development of their students will not deny the problems of managing status and social class distinctions in the work world. Nor will teachers delude young people into believing they can rise to any level or be anything they want to be. A reality of first order is that this can be a tough world, one that for many will require determination in overcoming economic limitations, personal and social handicaps, or early deprivations. But generally our system will accommodate the expression of self needs of those who persevere, and the social system itself is amenable to change through concerted and disciplined efforts.

What My Father Is So Am I

Sociologists tell us that an individual's socio-economic status plays an important part in career decisions. Studies have shown that there is a decided tendency for one generation to inherit the economic status and occupational level of the previous generation. Although there are some deviations downward or upward from this expected pattern, the children of skilled workers tend to enter skilled occupations; the children of business and professional persons tend to enter business and the professions. Biological and cultural factors provide the basis for social stratification. Super (1957) has said:

> ——Those who are born high on the scale tend to be more fortunate not only in biological but in social inheritance than those born lower on the ladder. Their environment is generally richer intellectually and emotionally, their achievement motivation is superior, their education is likely to be better and more complete, they are more apt to have contacts that will help them get started and get ahead, they have more capital to assist them in the process, and they receive higher wages and salaries (p. 267).

The differential distribution of advantages and disadvantages in the social system is particularly evident in the case of women and minorities. Thus one could also say "What my sex is . . . ," "What my race is . . ." While various minority groups are striving to close the gap between themselves and the white male, the disparities remain.

Stratification promotes a social distance between persons which is devastating to one's self esteem. It creates a surreal circumstance which Studs Terkel (1972) has said makes status more important than the work itself.

Education has not been inclined to deal in a positive way with the

problem of social stratification, but has tended to foster it. In their tendency to avoid the issue of values, the schools have been remiss in not developing respect for the dignity and worth of the human being. Such respect can be developed, but to do so the teacher and counselor must be willing to 1) expose children to the differences among groups which lead to stereotyping along superior-inferior lines, 2) help young people discover the positive qualities associated with such differences, 3) encourage the kind of risk-taking which is tolerant of ambiguity, and 4) instill in students an attitude of tentativeness in forming evaluations of others.

The Step from Blue Denim to White Collar

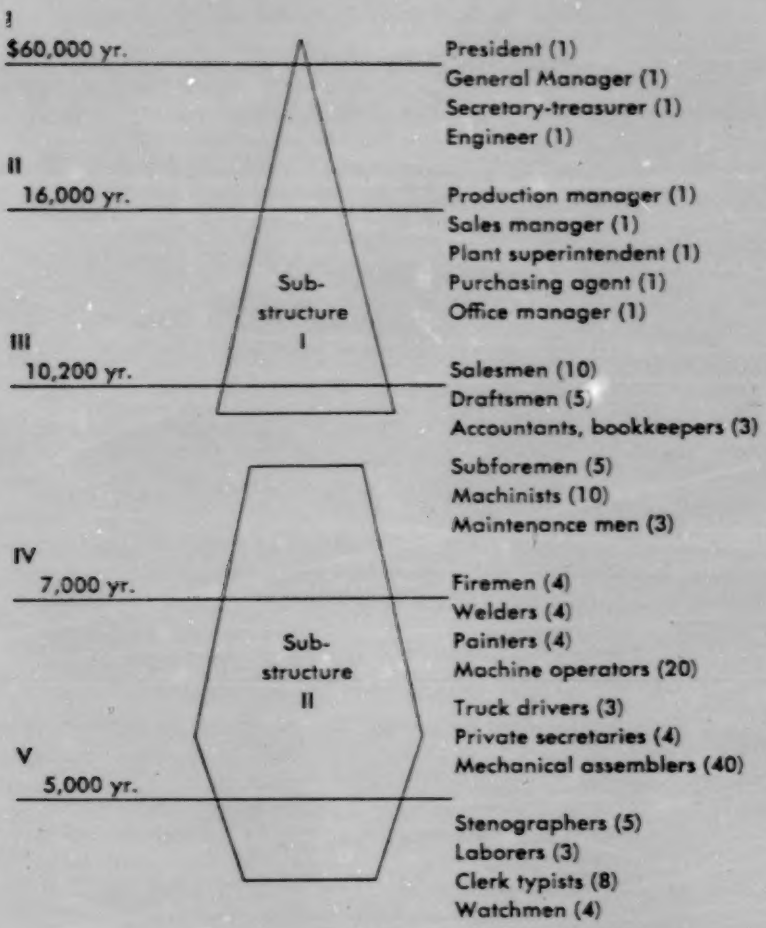
The existence of stratification in industry serves as a further deterrent to the occupational mobility of the worker. In the old days industry was organized in such a way that it was possible for a poor young person to start at the bottom and to eventually work up to a leadership position in the company. From mill hand to mill head made popular headlines years ago. The engineers of yesterday were likely to have started their career as machinists, and executives were likely to have been drawn from the ranks. Although one still reads of such success stories today, for almost all youth the day of skyrocket mobility is past. No longer are the office clerks likely to work their way up to bookkeepers and then to head accountant. Many managers are now selected as trainees from the business colleges rather than from the ranks of supervisors. Most workers today live within a narrow framework of limited advancement and closely defined possibilities.

Miller and Form (1964) have made extensive investigations of the avenues of mobility in the industrial setting. Their description of the class structure of a Midwest industrial plant, although somewhat dated, provides a good illustration of the situation confronting youth in planning for the future. We have pictured this in Figure 1.

In the words of Miller and Form, Classes I, II, and III are largely managerial groups who receive salaries, bonuses, and dividends. Class IV is made up of salaried and wage workers, as is the lowest class, VI. Class V is made up almost entirely of wage workers who also receive bonuses. The most important break occurs between Classes III and IV. Those in the first three classes are largely the managerial group, who receive highest incomes, and those below are dependent salaried and wage workers. Mobility between these two composite groups is negligible or even absent. Mobility among the individual classes is also small, the greatest being between IV and V.

Figure 1

Class Structure of a Midwest Industry



It would appear from the studies of these investigators that the class structure of industry is really composed of two substructures, with mobility between structures a rare possibility. Observation of this emerging phenomenon led Vance Packard (1959) to conclude:

> ——I would say that the class structure of the United States is more like a jungle gym than a ladder. Or to be more precise, in view of the gulf developing between the diploma elite and

supporting classes, it is like two jungle gyms. One jungle gym is on the ground floor of a building. The other, directly above it, is on the second floor. To move from the lower jungle gym to the higher one, you must go outside and climb up the fire escape of higher education (p. 56).

Teachers who are concerned with the career development of their students should be aware of the mobility implications of this emerging class picture. At the upper level (Sub-structure I), for those who have achieved the college degree, the opportunity for ascent is possible. But completing a college education does not assure that individuals will find satisfaction in their work nor that they will achieve success defined by status or high position. Indeed restrictions on advancement for college graduates have been tightening in recent years.

At the lower level (Sub-structure II), the worker's opportunities for ascent are severely limited. The door to management positions are virtually closed, unless workers are willing to find educational ladders which they can climb. Teachers need to be aware that many young people who sit in the classroom today will work tomorrow in the lower jungle gym.

Some Adjustments They Face

A period of painful readjustment of attitudes, and in some cases aspirations, confronts young people as they become aware of the realities of occupational life. Proper preparation during the school years would do much to alleviate the stress which accompanies these adjustments. There are a few basic understandings which would be helpful to youth in making the transition from school to work.

The first grows out of the contrast between the work regimen and that of the school. Studies have been remarkably consistent in showing that morale of young workers tends to go down during the first few years of employment. Many students find the transition from the cultural environment of the school to the cultural environment of a monetary work plant extremely difficult. One reason for this is that school provides a constant stimulant of new things to learn and varied social interactions, and accomplishments are rewarded in a definite way. In their first business or industry jobs, on the other hand, individuals spend their best energies each day working for someone whom they may never really know, performing a relatively simple task, and doing so with a restricted group of people. It is an abrupt awakening to reality for the student. An interested teacher, concerned with career education, can do much to help students gain a clearer awareness of the cultural setting in which they will work.

Second, students need also to understand that the trend in employ-

ment is to require some type of specialized pre-job schooling which certifies a degree of vocational competency. The term "technician" is used to describe a large group of occupations which have been added to the expanding civilian economy in recent years and which generally require training beyond that of the skilled craftsman. Other occupations, too, are raising their training requirements, and positions in industry increasingly are filled by recruiting from the colleges, technical and business schools, rather than from the working personnel who lack vocational training. Such recruiting practices serve as barriers to youth about to enter the labor market, a market which is not an open one in the traditional sense.

Third, a reality facing students at all educational levels is the existing restrictions to entry in certain occupations. It is not uncommon, for example, for college students who are considering school counseling as a career to express surprise when told that they must first acquire a teaching certificate and some experience in the field, after which they must complete a Master's degree in Educational Psychology. Restrictions such as this one are imposed by unions and professional organizations which control the training and certification necessary for entry. Racial quotas and sex role expectancies serve as additional barriers to employment, although this is slowly changing as business, industry and labor develop affirmative action plans. Affirmative action notwithstanding, discrimination on the basis of race, sex and age remains as a very real barrier for both men and women.

The objectives of these barriers are complex and little understood. They may include the socially desirable intention of raising the standards of competence of those engaged in the work, the constructive desire to keep the numbers of those in the occupation from swelling so as to create unemployment in that field, and the selfish but human tendency to restrict the size of the occupational group in order to increase its financial rewards beyond what society would otherwise pay for its services, or they may be politically motivated. Apprenticeship policies of certain unions may severely limit an individual's possibilities of entering the craft. Only recently, for example, has here been some lifting of the strict limitations on number of students admitted to medical schools. Students sooner or later face realities; it is better if they learn about them early, not merely to accept them but possibly to change them.

TOUCHSTONES TO GUIDE THE TEACHER AND COUNSELOR

The realities presented here may seem overly pessimistic to the teacher whose only work experience has been in the classroom. It would indeed be unfair to conclude that self-determination is no longer an important element in the American way of life. But it would be equally unfair to ignore the extent to which an individual's development is shaped

by the influence of social and economic factors in the changing American culture. Our pride in the democratic way of life should not blind us to the fact that realities of adult life outside of the school may fall short of the ideals we espouse. Students should be spared the tragedy of an abrupt awakening to this discrepancy between ideals and practice.

It is quite possible that the realities presented in this chapter will prove to be a source of conflict for those teachers and counselors who think seriously about the effect of their influence on the development of career attitudes in students. They need not, however, if they will recognize that only by becoming realistic can one be genuinely democratic, and a realism of first importance is that no society ever fully lives up to the expectations of a free people. It is precisely in this light that reality factors of our society should be presented to students. Are there any guidelines which will help those of us in education who are concerned with the career development of students? It would seem that the following touchstones are relevant:

Freedom to Become

A basic value, rooted deeply in our moral heritage, our political philosophy, and the traditions of our society, is the concept of individual freedom and responsibility. The theory behind guidance is consonant with this fundamental democratic value. But this basic belief can easily be lost sight of in a time when our country is faced with shortages of workers in needed occupations and an oversupply in other fields, or in economic periods when there are not enough jobs to go around. Conceivably, we could find ourselves a part of a sacrificial pilgrimage of the basic values of our society.

Counselors and teachers must keep in mind the fact that the strength of our nation in the past has rested on the natural differences in individual talents and the freedom of each individual to develop and express his or her talents in an unique way. Preservation of our students' integrity as individuals disavows any type of prescriptive guidance which commits the individual to particular directions. There must be room in our value system for the person with high potential in science who chooses to work as a mechanic rather than as scientist. In the same sense, there must be room also for the person with great art potential who prefers to become a chemist.

Students need teachers and counselors who will help them become familiar with many life opportunities and life arrangements in which they may find satisfaction. They need exploratory experiences which will help them to test their preferences, obtain information about a wide variety of options, and sort out the meaning of these in relation to their goals and values. Such information and experience is vitally necessary if students are to make wise decisions, and it cannot be left to chance.

It is also necessary that the teachers who guide students in their career exploration believe wholeheartedly in the capacity of individuals to make good choices.

Equal Dignity of All Workers

High school students seldom express any ambition to be filing clerks, or skilled workers, or filling station attendants. There are many whose occupational goals are determined without consideration of the needs of the economy. Others aim for occupations incompatible with their abilities. The influence of prevailing social attitudes toward occupations is a principal reason for this lack of realism. Rational consideration of interests, abilities and values in relation to occupational opportunities is pushed into the background by the pressure of occupational prestige. For as long as individuals are defined primarily by the title of their occupation, young people will find it difficult to think objectively about occupations which are best suited for them.

The greatest portion of students who attend school will work eventually as semi-skilled operatives, skilled mechanics, office workers, salespersons and personal service workers. Classroom teachers and counselors can render a real service by acknowledging the importance and value of these and all other occupations. Such recognition must be genuine, however, and educators will have to examine their own attitudes to determine whether in all honesty these attitudes do signify respect for any and all workers who render a socially valuable service. An occupation in and of itself can have no dignity — the dignity resides in the individual who performs the work and cannot be increased or diminished by an occupational title

Importance of Each Human Being

A notion is cherished in this country that everyone has a purposeful role to play in our society; the contribution of no one person can be overlooked. This belief suggests that all students should have the opportunity to develop their abilities and talents as far as possible. There is little doubt that this belief, as it is practiced today, emphasizes the development of the talents of the academically superior student. There is certainly nothing wrong with encouraging the able student, provided our commitment does not carry with it an overwhelming unconcern for the student who is not academically inclined.

With secondary education becoming universal, our schools include many children who have little aptitude for learning from typical school books, and who will find themselves hopelessly defeated in a program geared to the average and above average student. *These individuals are as much our concern as are the more academically able students.* Although such students may show little potential for brilliance in the arts and sciences, Einstein, Emerson and Edison all had trouble in school.

And most of the work that must be done at all levels requires not academic brilliance, but the ability to relate well to other people, to be patient, persistent, and conscientious. We must not allow generalizations about ability and its relation to "success" to cloud any student's opportunities to develop a satisfying carer in whatever field he or she chooses.

Broadening Their Percepts

Occupational specialization has developed to an almost incredible degree in America. This specialization has had its counterpart in our schools in the programming of students. A practice of long standing in American education requires that students' expressed vocational choices serve as partial bases for planning their high school programs. It is not at all uncommon to find some schools using the results of interest inventories and other tests as a device for encouraging eighth or ninth grade students to select a curriculum in which they might specialize in high school. In our efforts to help young people cope with the complex decisions which they face at the time of graduation, we have followed a policy of early encouragement in the narrowing of vocational choices. This practice, based upon a continuing assumption underlying certain career education models of present day, is thought to be desirable by those who fear that the young will be overwhelmed by too many options and those who, for various reasons, are inclined to classify and pigeonhole students.

Our mistake has been a failure to recognize that it is through broadening students' experiences that they are best able to establish meaningful goals. Specialization which occurs too early in a students' education may result in later dissatisfaction when the inappropriateness of the path they have taken becomes apparent to them. Not only may an occupational goal suitable to the individual at the age of 13 or 14 be entirely inappropriate to the person he or she has become at the age of 19 or 20, but the occupation itself may no longer exist in its form of a few years past. The elementary and secondary years should broaden the student's percepts of the world of work by providing a breadth of educational experiences. These years also prepare youth to gather, evaluate and use the information gained from these experiences in making their career decisions.

Career development is a continuous process extending over many years. During the school years students should gradually learn more about themselves in relation to occupational opportunities. The teacher's responsibility is to help them learn the exploration and decision-making skills which are essential to making satisfying career decisions.

Part Three

FORECAST OF THE FUTURE

. . . Our next generation may not only pursue different goals, but may judge the importance of things differently. What looks like an important trend to us may be ignored by our children even though it developed exactly as we predicted. And what we ignored as being trivial — even though we could have foreseen how it would change — may become one of the most critical issues.

—Fred Charles Ikle

Technological and economic changes will always affect people and their lives in unforeseen ways, and it is only natural that a period of rapid change may lead to feelings of despair in prophesying the future. For the teacher who has been educated in the vein of preciseness and tangibility there is often a reluctance to "second guess" the future in carrying on discourse with students or in providing career information. But youth will not learn to live in the world of tomorrow if they have imposed upon them an informational quarantine. More true now than in the past, young people need exposures to different occupations and work experiences. Learning how to utilize these experiences in analyzing their values and the values of others helps prepare them to manage future change.

The teacher and counselor, working in conjunction with their students, must try to anticipate the future and contemplate what technological and social change may mean. Not only should the impact of change on work and career be considered, but also the manner in which it affects society itself and our "way of life."

That the future holds problems there can be no doubt. But this need not be a forecast of gloom, for the future holds promise as well. Exciting new career opportunities inevitably accompany technological change. If work does not become intrinsically more rewarding, at least it may become less monotonous and tedious. Leisure assumes a new meaning in its relationship to employed work. There is sound reason to believe that changes in our economic structure and new forms of social legislation will increase the availability and range of choice. The real problem is to cultivate a propensity for and skills in decision-making, and this necessarily requires a direct confrontation on the part of the student with the economic reality of what *is* and the prophesy of what *may be*.

This confrontation, under the leadership of an imaginative teacher,

could provide a meaningful relating of manpower data to career possibilities growing out of the teacher's particular subject. Some effort would have to be expended, of course, in becoming familiar with the occupational outlook as projected in various manpower utilization reports.

Our purpose here is to discuss the future of work and to consider in a broad fashion some fundamental alterations in the economy that hold significance for the guidance of young people. We close the chapter by setting forth several general understandings which teachers might share with their students to provoke classroom discussion.

DO YOUNGSTERS HAVE A FUTURE IN WORK?

There are those today who question whether the future will offer youth an opportunity to invest their lives meaningfully through work. Social analysts who study the human condition and who communicate about the uncertain future of work as an institution for self-fulfillment base their interpretation upon two observations. First, a belief is expressed that work has lost a sense of purpose and dignity for the individual; that changes which already have occurred in our industrial economy negate any possibility for personal involvement in work. Second, observers of the social scene point out that the need for work is declining; that automation will enable a fraction of the present labor force to supply everything the population needs. The accuracy of the beliefs, and the social implications of the technical advances which prompt them, warrant careful examination.

Can Work Give a Sense of Purpose?

Were it not for a sense of incompleteness felt by many workers, the question would never be raised. Obviously, many people today fail to find significant meaning in their occupational lives. Although this has probably been true of every age, we are warned that the problem grows more serious because of technological advances and growth in size, impersonality, and power of organizations. The result, some say, is that working conditions are created which erode the work ethic, leaving the individual to seek psychological and social enrichment in nonwork settings. It is interesting that at the same time increasing numbers of workers are expressing their reluctance to engage in "meaningless" work, many students are questioning the "irrelevancy" of their education. This dissidence does not necessarily connote any denial of the values which underlie these pursuits; it constitutes instead an ardent appeal for needed reforms. The individual's need and desire for significant activity, whether biologically or socially derived, is a fact of life. And it appears evident that we are moving into a period in which noncritical acceptance of economic or educational systems that fail to accommodate human needs will no longer prevail.

The reason most frequently cited for the individual's difficulty in

establishing an adequate identification with work is that the product is no longer the result of one's exclusive labor. It would be folly to ignore the fact that there is little opportunity for intrinsic satisfaction in many present-day work situations or to insist that men and women should respond to the assembly-line job with attitudes characteristic of the medieval craftsman. At the same time, we would be ill-advised not to recognize that technological and social change paves the way for job redesign, allows opportunity to examine creatively the interface of work and leisure in a balanced life, and enlarges the scope of career possibilities available to the individual.

One may expect that the future, with its inevitable expansion of job specialties, will provide an ever-widening range of alternatives from which youth may choose. Granted, the post-industrial era will demand greater skill and use of capacities than the world of yesterday and this will pose new challenges for education. But a smorgasbord of career opportunities already exists and will continue to exist, although temporary economic recessions may periodically be expected to affect each of us. The new possibilities becoming presently available or that will be open in the years ahead provide a range of choice which offers young people unexcelled opportunities to plan their lives according to objectives most compatible with their inner selves.

A second factor contributing to the person's lack of personal involvement in work grows out of the transition underway from an economy of scarcity to one of abundance. In an economy of scarcity when a job serves the purpose of providing for sustenance needs of oneself and one's family, work is virtuous and it is meaningful. When the economy undergoes changes in the direction of providing more abundance, traditional meanings of work may change. It is difficult, for example, to feel one is making a contribution when the work done serves primarily the end of further material consumption based upon strategies of planned obsolescence.

It seems likely that those values closely correlated with the classical work ethic, such as achievement, independence, and delay of gratification, will continue to predominate in the work lives of many, but other individuals will seek to define their ethic in terms of self expression, interdependence, and service — or some combination of traditional and emerging values. Any assumption that work as a concept will no longer be of significance seems totally unwarranted in light of present observation. But we may indeed expect to see a pursuit of new purposes in work and "dramatic changes in the relative emphasis given to economic, social and psychological components of job content and performance" (Johnston, May 1972).

A researcher and writer who has sought diligently to discover the meaning of work in the modern era is Harold Wilensky (1964). Al-

though Wilensky's inclination is to avoid the question of centrality of work as a source of personal identity, he does not hesitate to venture the opinion that employment is a necessity in the life of the individual. He says:

> The primordial meaning and function of work is dramatized by the narrow range of social contact of men squeezed out of the labor market; the aged, the school dropouts, the unemployed, and the underemployed are isolated from the mainstream of community life. Employment remains a symbol of one's place among the living (p. 148).

For Wilensky, work is a "necessary condition for drawing the individual into the mainstream of social life." Can it be otherwise, then, that the institution of work, if used wisely by human beings, offers a medium for realization of one's identity? We would extend Wilensky's observation by saying that *one way of looking at the meaning of work is to view it in light of its possibilities for personal self-realization through mutually enhancing relations with others in significant activity.* If our present socio-economic system does not permit this kind of meaning to be derived from work, then the system should be studied with the view of identifying the needed alterations which will enable human beings to feel human. And this is what the business of education is about, or should be about — that is, to understand the forces which affect our lives, to recognize that values of individuals change and must change, and to provide young people with the attitudinal equipment they will need to effect positive changes.

The shaping of work in ways that will more completely enhance personal development is not an altogether unwarranted idealism, but it is a venture which undoubtedly will be slow and uneven. It would seem that the hope for such restructuring lies with the younger generation provided they can be reached before they assume the masks believed necessary, but falsely so, to get along in society. Schools can play an important part, if they can break out of their conservatism, by serving as major loci of innovation. Education will have to intervene actively in the lives of young people for the purpose of facilitating discovery and creation of self.

A concept presently stimulating experimentation with a variety of novel interventions, capturing both the imagination of education and the interest of the public, is career development education. While program goals across the country vary greatly, and from school to school, the fundamental intent of this concept is (or should be) to provide educational experiences which will enable the individual to engage in self reflection and to consider the kind of person he or she wants to become. This movement in education is not without controversy, for it involves engagement of students with the realities of the community

and it deliberately fosters a process of critical thinking about the value dilemmas brought forward by community experiences. It remains to be seen whether or not the public is ready to accept a concept based upon assumptions which suggest that only when young people are encouraged to explore the world as it is will they be in a position to

1) develop the strength necessary to manage the discontinuities of career,

2) contemplate and plan how the world might be, and

3) acquire the skills and strategies necessary to change a small part of that world.

The Value of Work for Personal Development

Much has been written about the individual's alienation in our present age of uncertainty. We are told that the alienating influences of modern life leave people psychologically isolated in their community, bereft of religion, restless with their work, and divorced from nature. This estrangement, and the consequent anxiety associated with it, leads to a groping for means to achieve a sense of personal significance. The need to think well of ourselves, to feel worthwhile, lies at the very core of human behavior and adaptation. When society develops to a point where there is no longer a direct relationship between work and the fulfillment of biological needs, the individual will substitute indirect relationships as a means of finding significance through work activities. One's efforts may take the form of much "trial and error," and the results would appear ludicrous if it were not for an understanding of the sheer desperation out of which they grow.

Thus it is that individuals may bolster their self-esteem by striving for prestige, power, and possession as a means of self-validation. In an utterly dependent way a person may strive for repeated confirmation of one's worth by seeking to impress others, to be admired and respected. He or she may constantly play to the audience, assuming a pose, adopting a socially approved role, responding always in a manner appropriate to the expectations of others.

This is not to imply that role-playing has no part in one's life. In fact, it is doubtful whether organized society could carry on without our assuming certain prescribed roles. But all too often the individual's role performance may be less than honest. The role one assumes may not be in accord with deepest desires and beliefs, or one may feel the need always to suppress the real self. *The performance becomes an end in itself.* And to use oneself in this way sets a tenuous base upon which to build or maintain an identity. Such motivation hinders the development of relations which promote growth and change, leading in some circumstances to individuals losing contact with their actual selves.

The critical issue that needs to be resolved by each teacher is whether or not the limitations that work and society impose on human possibilities are an unalterable reality. Can individuals relate as persons in social work groups in ways that mean not a losing but a finding of themselves? If, as some contend, work has come to be structured in a way that is inherently alien to personal needs, does this mean that individuals must resign themselves to a less than happy adaptation to the monster? Or is it possible for one to bring about the fundamental institutional changes that may be necessary to make work more favorable for human development? We agree with Fromm (1947, p. 140) that although ". . . the striving for success was one of the indispensable conditions of the enormous achievement of modern capitalism, a stage has been reached where the problem of *production* has been virtually solved and where the problem of the *organization of social life* has become the paramount task of mankind." The promise is that of creating a society in which each person matters, where one relates to other persons in terms of their personal qualities rather than regarding them solely in role or audience relations. There is substantial evidence from the field of psychotherapy to indicate that relationships of mutuality—where there is trust and openness of communication—make possible the finding of oneself.

Will Work be Available?

Unless work is thought of narrowly, in the sense of physical labor productive of tangible goods, no thoughtful person envisions the demise of work as a principal means by which individuals orient themselves within society. There are, however, futurists who foresee a declining need for work because of the cybernetic revolution. While some government officials continue to advocate a national policy of full employment, the prevailing attitude since the early 1960's has been that full employment is not only an unattainable goal, but an outmoded objective of economic policy. It is obvious that periods of recession, with the consequent increases in unemployment, affect the work available to men and women participating in the labor force. But it would be an error to assume that the problem of unemployment during periods of economic "lows" is directly related to automation or that it constitutes unequivocal evidence that the employed work force is gradually being reduced because of mechanization.

Table 1 shows quite clearly that while the percentage increase in employment was negligible during the 1969-70 recession, failing to match the corresponding increase in working age population, the number of persons obtaining employment still increased over earlier years. Even at the peak of the recession in 1970, total employment rose by 493,000, continuing a pattern of yearly increases in numbers and reaching an all-time total employment of over 84 million in 1973. Close to a

million and one-half additional persons were employed each of the several years preceding the recession, and over two and one-half million each of the two years following.

TABLE 1

Population and Civilian Employment

Yearly Increase 1965-73

Year	Population 16 Yr. & Older (in 1,000's)	Yearly % Increase	No. Employed (in 1,000's)	Yearly % Increase	Ratio of Empl. to Pop. Increases
1965	129,236		71,088		
		1.58		2.54	Greater
1966	131,180		72,895		
		1.63		2.03	Greater
1967	133,319		74,372		
		1.68		2.08	Greater
1968	135,562		75,920		
		1.68		2.61	Greater
1969	137,841		77,902		
		1.69		0.93	Less
1970	140,182		78,627		
		1.72		0.62	Less
1971	142,596		79,120		
		2.23		2.00	Less
1972	145,775		81,702		
		1.71		3.31	Greater
1973	148,263		84,409		

Source: U.S. Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States*, 1967, 1968, 1974 (88th, 89th and 95th Editions). Washington, D.C.: Government Printing Office.

Whether or not automation is having a negative effect on the availability of jobs can be further assessed by looking at earlier long-term employment increases in relation to growth of the working age population. As shown in Table 2, both population and the employed work force grew over the twenty year period from 1950 to 1970. During the decade of the 1950's the expanding work force did not increase quite as fast as the growing population of working age. The rate of employment growth during the 1960's, however, surpassed the percentage increase in population growth.

TABLE 2

Population and Civilian Employment

Increase 1950-60 and 1960-70

Year	Population 16 Yr. & Older (in 1,000's)	Percent Increase	No. Employed (in 1,000's)	Percent Increase
1950	106,645		58,914	
		12.29		11.65
1960	119,759		65,778	
		17.05		19.52
1970	140,182		78,627	

Source: U.S. Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States*, 1967, 1968, 1974 (88th, 89th and 95th Editions). Washington, D.C.: Government Printing Office.

The facts speak for themselves. Even with increasing automation, there are more people working now than ever before. Experience with the impact of automation to date has not borne out earlier predictions of a diminution of the work force. But if automation does not imply a reduction in demand for labor, it does combine with rising educational levels and emerging community problems to affect the composition of the work force. An understanding of the structural changes taking place in our industrial and occupational economy is of germane interest to the teacher and counselor concerned with career development education.

CHANGING PROFILE OF THE NATION'S WORK FORCE

Our world of work is altered in certain fundamental ways by technological progress. As we have already seen, the effect of scientific advance has been to increase the nation's productive capacity to the point that some believe the human's place in the scheme of things is cast in doubt. Young people can, however, be encouraged by events now unfolding and plan useful and meaningful careers, but they must be made cognizant of the changes taking place in the work world and the significance of these changes for their life planning. We attempt in this section to assess several of the more dramatic alterations.

Character of Labor Force

Historically the percentage increase in employment has matched the increase in working age population, as has been shown already. Similarly the growth of the labor force, as distinguished from the employed work force, has paralleled population growth. The labor force may be defined as those actually working or actively seeking work at the

time the census is taken. If one will accept the government's assumption of a 4-percent unemployment rate, though this is subject to cyclical variations of the economy, the comparability of the two concepts can be seen. Thus labor force figures will always exceed those related to employment. Data pertaining to each concept are used selectively in this chapter, depending upon which offers the greater utility in conveying a given point.

In the period from 1972 to 1980, the total labor force (including the military) is expected to increase by nearly 13 million, building upon an even more rapid expansion of the previous decade. A projected increase of 6 million during the first five years of the 1980's will result in a labor force falling just short of 108 million in 1985 (Johnston, December 1973). An understanding of the age and sex composition of this expanding work population provides teachers and counselors with information important in helping young people think a bit more objectively about the future.

Table 3 reveals that marked changes will occur in the age makeup of the labor force projected for the remainder of this decade and the first half of the 1980's. A major characteristic is the sharp decline over this period in the number of young workers ages 16 to 24 years who impacted the labor force during the last decade. The "baby boom" following World War II has moved through the cycle of natural events, meaning that by far the greatest proportion of the projected increase in the labor force of the present decade will occur among the group 25 to 34 years of age. Labor force growth in the 1980-85 years may be expected to shift to the 35-44 age group. Corresponding to these shifts, the teenage labor force, because of reduced birth rates beginning about the mid-1960's, is expected to decline significantly over this projected future.

TABLE 3

Changes in Labor Force by Age Groups

Actual 1960-68 and Projected 1968-80 and 1980-85

Age Group	Percent Change		
	1960-1968	1968-1980	1980-1985
16-24	53.7	26.1	—13.8
25-34	13.6	52.9	43.4
35-44	2.1	9.8	71.9
45-54	17.5	—.8	—4.1
55-64	15.3	10.8	.5

Source: Adapted from Sophia C. Travis, "The U.S. Labor Force: Projections to 1985," *Monthly Labor Review*, May 1970 (page 5). Washington, D.C.: Government Printing Office.

What implications do the changes foreseen in age groups of the labor force have for the career guidance of children? Of note is the fact that the teenage labor force and the number of young workers under 24 years of age will grow much more slowly in the next ten years. Thus the problems accompanying labor force entry which young people experienced during the 1960's and early seventies may be expected to lessen. Children presently of elementary school age should therefore experience relatively less difficulty gaining employment in their later years of high school or upon graduation. However, high school seniors graduating today, particularly if they are limited in work experience, may still expect to encounter some problems securing employment in many entry level occupations. Overall, the substantial increase in midlife adult workers over the next decade may limit opportunities of the younger worker for promotion and advancement. This problem may, of course, be compensated for by a willingness to avail oneself of continuing educational opportunities.

No less significant than the age change is the steady movement of women into the labor force. In 1960, 32.1 percent of those in the labor force were women. This figure increased to 36.7 percent in 1970 and is projected to 38.5 percent in 1980. The evolution in social attitudes and values which has encouraged women to express their talents in paid work is dramatically brought home when one realizes that in 1900 women constituted only 18 percent of all workers.

Perhaps a more important question having relevance for the career guidance of young women has to do with the percentage of the female population now participating and expected in the future to participate in the labor force. In response to this question, several important facts are shown by the data provided in Table 4. First, 42.8 percent of the women 16 years of age or older were gainfully employed or seeking employment in 1970. Second, the rapid increase in labor force participation rates of women 25 to 34 years old over the past decade is expected to decline during the 1970's, becoming relatively negligible in the early 1980's. The earlier increases among this age group can be attributed for the most part to substantial reductions in birth rates and an anticipated future leveling off of these birth rates. Third, and of utmost importance to the career planning of young women, projections indicate that by 1980 over 50 percent of all women 16 to 54 years of age will be in the labor force.

TABLE 4

Labor Force Participation Rates of Women, Actual and Projected[1]

Age	Actual 1960	Actual 1970	Projected 1980	Projected 1985	Projected 1990
Total, 16 years & older	37.1	42.8	45.0	45.6	45.9
16 - 24	41.5	48.7	52.9	54.6	54.6
25 - 34	35.8	44.8	50.2	50.9	51.5
35 - 44	43.1	50.9	53.2	54.4	55.2
45 - 54	49.3	54.0	56.2	57.4	58.0
55 - 64	36.7	42.5	44.7	45.4	45.8
65 years & older	10.5	9.2	8.6	8.5	8.3

[1]Percent of Female Population in Labor Force.

Source: Adapted from Denis F. Johnston, "The U.S. Labor Force, Projections to 1990," *Monthly Labor Review*, July 1973. Washington, D.C.: Government Printing Office.

Past estimates indicate that about 50 percent of all women spend their full time managing the home and that the large majority of women, whether in the labor force or not, continue to be homemakers. But the *Handbook on Women Workers* (1969) provides data which speak unmistakingly of the change in relationship of women to the labor market. According to this source, about 9 out of 10 women will work outside of the home some time during their lives, whether they marry or not. Among women entering the labor force by age 20, those who remain unmarried are likely to continue to work for about 45 years; those who marry and continue to live with their husband but without having children may expect a worklife of 35 years. While over 60 percent of the women 16 years of age and over in the labor force are married, it is difficult to estimate the working life expectancy of those who have children, primarily because of the intermittent nature of their work careers. For the many in their mid-thirties who are presently reentering the labor force and who plan to have no more children, they can expect to average another 24 years of work.

A kind of information of more general helpfulness to girls in their life planning is contained in data reflecting trends in labor force participation of married women who have children. These trends can be gleaned from data presented in Table 5.

TABLE 5

Labor Force Participation Rates of Married Women (Husband Present) With Children[1]

Item	1950[2]	1960	1970	1973
With children 6-17 years old only	28.3	39.0	49.2	50.1
With children under 6 years old	11.9	18.6	30.3	32.7
Also with children 6-17 years old	12.6	18.9	30.5	30.9

[1]Married women in the labor force as percent of married women in the population.

[2]Excludes Alaska and Hawaii.

Source: Adapted from U.S. Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States*, 1974 (95th Edition). Washington, D.C.: Government Printing Office.

A comparison of the data in Table 5 with that of Table 4 reveals that in the 10 year period from 1960 to 1970 the labor force participation rate of mothers living with husbands increased almost two times more than did the labor force participation of all women. Table 5 shows that between 1950 and 1960 the participation rate rose more slowly for mothers with children under 6 years of age than for those with children 6 to 17 years only. However, since 1960 the rate for mothers of young children increased much faster than for women with older children, 14.1 percent compared to 11.1 percent respectively. Thus by 1973, half of the mothers with children 6 to 17 years only and one-third of those with young children were in the labor force.

It seems more than reasonable in light of the data presented in this section to predict a continued increase in the proportion of women who will seek employment outside of the home. It is doubtful whether most high school students, girls or boys, are aware of the trends portrayed by these data, much less weighing the significance of these trends for their own career and life planning.

The Industrial Structure is Changing

One consequence of our nation's increasing productive capacity is that more physical goods can be produced by the same number of workers. Or, another way of saying it, the same amount of production requires fewer workers. When workers are no longer needed to produce goods, they will be displaced. It is inevitable, then, that our industrial structure will change in ways to accommodate the shifting demands. What has happened to the millions of workers displaced in the production realm is reflected in Table 6.

TABLE 6

Percent Distribution of Employees in Goods Producing Versus Service Producing Industries Projected to 1980

	1955	1960	1968	1972	1980
Producing Goods					
Manufacturing	26.3	25.0	24.9	22.5	22.6
Agriculture	9.8	7.8	4.7	4.0	2.3
Construction	5.4	5.3	5.0	5.1	4.8
Mining	1.3	1.1	.8	.8	.6
Total	42.8	39.2	35.4	32.4	30.3
Producing Services					
Trade	20.1	20.6	21.6	21.5	21.4
Government Services	10.5	12.1	14.6	15.5	16.4
Transportation, Communications and Public Utilities	6.6	6.1	5.6	5.5	5.2
Finance, Insurance and Real Estate	4.0	4.3	4.6	5.0	5.3
All Other Services	15.9	17.6	19.2	20.0	21.5
Total	57.1	60.7	65.6	67.5	69.8

Source: Computed from Manpower Report of the President, April 1974 (page 112). Washington, D.C.: Government Printing Office.

Most striking of the industrial changes has been the shift from goods-producing to service-producing activities. An approximate 12 percent decrease in employment in goods-producing industries over the twenty-five year period from 1955 to 1980 is matched almost equally by the increase in employment among service-producing industries. The attrition occurring in all major goods-producing industries, but most spectacularly in agriculture, is absorbed in virtually all of the service-producing industries, particularly that of government service. These trends reflect not only a change in the occupational distribution of employed workers, but they signify a shift in the relative blue-collar versus white-collar need.

Changing Occupational Patterns

What kinds of workers will be needed in the future? Which fields of employment are showing greatest growth? What occupational groups will decline? Our students are called upon to answer these and related questions when considering their future and life plans.

The predominant shift from manual to white-collar occupations is vividly reflected in the occupational distribution shown in Table 7. While in 1900 the number of white-collar jobs was less than half the number of blue-collar jobs, these positions were reversed by 1960. It is estimated that by 1980 white-collar workers will outnumber those in manual occupations by more than 18 percent. This change reflects the expansion of the service and distributive industries, the recognition and acceptance given to cognitive type work activities that professional personnel bring to industry, and the continuing growth of clerical functions associated with business and government.

TABLE 7

Percentage of Civilian Labor Force Employed in Major Occupational Groups

Occupational Group	1900[1]	1950[2]	1960[3]	1972[3]	Projected 1980[3]
WHITE-COLLAR WORKERS	17.6	36.9	43.1	47.8	51.5
Professional and technical	4.3	8.7	11.0	14.0	15.7
Managers and administrators	5.8	8.9	11.2	9.8	10.5
Clerical workers	3.0	12.3	14.5	17.4	18.7
Sales personnel	4.5	7.0	6.4	6.6	6.6
BLUE-COLLAR WORKERS	35.8	40.8	36.3	35.0	33.1
Craft workers	10.5	14.1	13.3	13.2	12.8
Semiskilled operatives	12.8	20.4	17.3	16.6	15.6
Nonfarm laborers	12.5	6.3	5.7	5.2	4.7
SERVICE WORKERS	9.0	10.3	12.7	13.4	13.3
FARM WORKERS	37.6	12.0	7.9	3.8	2.1

[1]Prepared from U.S. Bureau of the Census, *Historical Statistics of the United States, Colonial Time to 1957*. Washington, D.C.: Government Printing Office, 1960.

[2]Prepared from U.S. Bureau of the Census, 1950 *United States Census of Population*, Volume II, Part 1. Washington, D.C.: Government Printing Office, 1962.

[3]Prepared from *Manpower Report of the President*, transmitted to the Congress on April 1974 (page 110). Washington, D.C.: Government Printing Office.

One may note that the increase in proportion of workers employed in professional and technical jobs and clerical occupations accounts for most of the observed and projected increase in the overall proportion of white-collar workers. Among the blue-collar workers, the semiskilled and unskilled employees are experiencing the greatest decline.

Skilled craftsmen are the only group of manual workers continuing to maintain their relative proportion. It is obvious from Table 7 that the

factor most affecting the long term occupational distribution is the rapid decline of farm workers.

For the immediate decade, perhaps the kind of data having most meaning for the career planning of students now in high school or college concerns prospective supply and demand of workers. Such information is provided in Table 8, comparing projected increases in labor force and employment for the period from 1970 to 1980.

TABLE 8

Comparison of Projected Percentage Increases in Labor Force and Employment by Occupational Groups 1970 - 1980

Occupational Group	Labor force increase (1)	Employment increase (2)	Difference (1) - (2)
White-Collar			
Professional, Technical & Kindred	45.3	39.0	6.3
Managerial, Clerical & Sales	24.6	21.9	2.7
Blue-Collar			
Craft & Kindred (part of)[1]	15.1	16.5	-1.4
Operatives (part of)[2]	11.0	16.9	-5.9
Laborers (part of)[3]	4.4	10.6	-6.2

Note: Occupational labels traditionally applied to blue-collar groups have been redefined in this analysis, resulting in some classification differences.

[1]Includes farmers, barbers, bartenders, and practical nurses.

[2]Includes auto mechanics, construction painters, plasterers, cement and concrete finishers, and roofers; selected service occupations, e.g., hospital attendants, waiters, guards, and housekeepers; metalworking industry laborers and shipping and receiving clerks, messengers and office helpers.

[3]Includes most farm and nonfarm workers, domestic workers, and laundry and dry cleaning operatives.

Source: *Adapted from Manpower Report to the President*, transmitted to the Congress April 1974 (p. 111). Washington, D.C.: Government Printing Office.

Although the white-collar occupations are expected to experience rates of growth between 1970 and 1980 which far exceed those of manual occupations, the comparisons indicate that persons seeking employment in the former occupations will be greater than the demand. In contrast, demand for the blue-collar workers may well grow faster than supply. These trends in the prospective supply of white-collar workers are affected by a number of factors, including the increasing upgrading of women and young minority group members for middle and

higher level occupations. To a certain extent this occupational outlook is influenced by the projected supply of college graduates.

Educational Requirements Increase

Labor force reports predict continuing advances in educational attainment of workers during this and the next decade. One of the major challenges of the economy will be to absorb the growing supply of well educated workers. Table 9 suggests that young workers in the projected labor force will tend increasingly to have achieved at least a high school education. The severe employment problems faced by those who over the years failed to complete high school will become even more severe for the dropout in the future.

TABLE 9

Projected Educational Attainment of Persons 20 to 34 Years of Age in the Civilian Labor Force, by Sex

Age and Years of School Completed	1980			1990		
	Both Sexes	Men	Women	Both Sexes	Men	Women
20 to 24 years						
4 years of H.S. or more	87.4	84.7	90.6	92.0	89.8	94.5
4 years of college or more	14.6	13.5	15.9	18.3	17.0	19.8
25 to 34 Years						
4 years of H.S. or more	83.9	84.2	83.4	89.2	89.9	87.9
4 years of college or more	24.1	25.0	22.6	29.7	29.5	30.1

Source: Adapted from Denis F. Johnston, "Education of Workers: Projections to 1990," *Monthly Labor Review*, November 1973 (p. 25). Washington, D.C.: Government Printing Office.

At the other end of the educational continuum, those with 4 years of college or more are expected also to increase in numbers, retaining a degree of balance between supply and demand throughout the present decade but possibly presenting a serious problem in the 1980's. It has been estimated that the surplus of college graduates may amount to about 140,000 a year during the 1980-85 period, or more than 10 percent of the projected supply (Alterman, December 1973). This surplus does not necessarily forecast large-scale unemployment among college graduates, but it does suggest that those achieving this level of education may be forced to take positions tangentially related to their fields of specialization, and in some instances jobs for which they are overqualified.

A special career problem confronts the woman college graduate since her numbers are expected to increase so rapidly. In the past, large proportions of these women have found employment in elementary and secondary education, fields which in the future are expected to be limited in job opportunities. Increasingly the woman college graduate will need to become sensitive to the changing demands of fields requiring highly trained professional and technical workers and to consider opportunities that may exist in traditionally male-dominated occupations. Career guidance for boys and girls must encourage a consciousness of career alternatives and multiple paths.

THE SIGNIFICANCE OF IT ALL

This chapter has been written to help teachers and counselors become sensitive to certain economic changes which will affect the work lives of young people in the immediate and near future. The information presented was drawn from an extensive data base which government statisticians compile to make economic and demographic predictions, but these predictions are dependent upon various assumptions and specifications regarding child-bearing and mortality rates, legislative or social changes, unforeseen contingencies such as a major war, and a host of other factors. While short-range predictions of the government economists have stood up well in the past, the validity of their projection data for long-range predictions may increasingly be affected by cybernation — i.e., the revolutionary systems which combine advanced machinery with the computer.

Futurists, concerned with the long-term implications of cybernation, offer thoughtful predictions of their own which can provide material valuable in provoking a forward-looking consciousness on the part of the student. Those who have gained acclaim in this role, whose conjectures about the world of tomorrow are listened to with attention, are quick to point out that a simple extrapolation of economic data without a corresponding body of information about the personal and social status of our citizenry limits the art of forecasting. While macro-social theories lack the empirically tested preciseness of economic theories(and probably will continue to do so because the issue of privacy hinders appropriate data collection), the futurist's predictions lead to imaginative speculations about tomorrow's world, forcing the individual and society to a serious examination of values. Lawrence Frank (Comment in *Daedalus*, Summer 1967) says that a free society "must keep open not only the possibility but the obligation to make choices and decisions predicated upon the values and aspirations we cherish and must continually strive to attain." Projections should never be used to foreclose on aims and goals nor to limit acceptance of new possibilities later.

In trying to present information that will be most helpful with

regard to career guidance and student life planning, the authors have deliberately chosen to work with economic projections, believing that an understanding of the current status of the economic system as determined by its antecedent states will offer the most realistic probabilities of future states. It is further believed that an understanding of where and what we are now is a desirable preparation for making the transition to the future. However, in no sense do we negate the value of teacher and student reading what the futurists have to say and engaging in creative dialogue over the ideas presented. If as teachers we live for those moments when a student makes that simple speculative leap, bringing a career into focus and an environment into perspective, then it cannot be a matter of either-or, for both kinds of information are important.

Because of the ferment brought by a changing world, our students cannot escape uncertainty and confusion in planning their lives. Nor can education ignore youth's need to seek order in the scheme of things. The teacher or counselor might wish that the projections presented in these pages would offer a map which clearly lays out the options and directions to be considered by students in their career planning. Such is not the case however, nor was this the intention of conducting the research. A primary reason the authors have avoided the term "career education" in favor of a concept of "career development education" is because so many of those who speak of career education are advocating the teaching of occupational and labor market information as the means by which the individual arrives at an *informed* choice. Career development education, in contrast, encourages the processing of such information conditionally, as a means to shape hypotheses about oneself and to eventually arrive at a *considered* choice. In short, education for career development, as conceived in this treatise, contributes to the personal growth of students in ways that complement the goals of both academic and vocational education.

Career development education is a response to the individual's continued interest in relating oneself to the environment through work, and growing from the experience. On the basis of what has been represented in these pages, there are five major understandings which the career development educator might share in discussion with students.

Developing Flexibility in Anticipating and Meeting Change

No matter how carefully students plan their work lives, it may be necessary for them to change occupations in midstream — perhaps to change plans several times in the course of their careers. Our young people must learn to anticipate the probability of change, to be flexible in learning new techniques and knowledge, and to be willing to move when occupational or geographical changes are necessary. More impor-

tantly, they must recognize the probability of pursuing successive careers during their working life and perhaps even engaging in multiple occupations at a given point in time in order to realize continuing and full satisfaction from their work.

Educators have much to learn about how to equip young people with the skills of adaptation. We could learn much from the students themselves if we would but share the problem with them. Beyond this sharing there are several possibilities. The teacher might deliberately encourage young people to think "future" — that is, help them think in terms of long-range projections rather than emphasizing, as we are inclined to do, immediate choices. Data presented in the preceding pages might be examined and analyzed in relation to predictions of the futurists for the purpose of encouraging a deliberate "sketching of hypothetical futures" on the part of students. Interested teachers could further show relationships between occupations within their broad subject fields and how the skills or knowledge utilized in one job may transfer to another. Very likely, though, the problem of developing flexibility in children is not unrelated to the inflexibility of our own educational program and methods. We might well ask whether or not the model we hold forth to youth is one of flexibility!

Achieving A Sound Basic Education

The cybernetic era requires a greatly increased emphasis on education, but not necessarily longer periods of education (Dechert, 1966). An education that prepares one for the future is one that teaches students to think! Dechert believes the best way to do this is to change the curriculum from a discipline-oriented to a problem-oriented process. Presumably the problem approach would prepare a liberated, more discriminating human being who would be able to cope with power conglomerates that now dominate private and public work institutions. Why Dechert believes that process goals cannot occur through the traditional disciplines remains unclear.

Other authorities, too, believe that a problem-centered approach in education permits idiosyncratic talent to find expression. Jourard and Overlade (1966) speak of a learning process which confronts the student with dilemmas or manageable contradictions, resulting in the development of those capacities necessary in transcending given circumstances. McIrvine (1967), in discussing the threat of cybernation to personal identity, divides the person's activity into two categories: Innovation and implementation. Cybernation strikes at a productive function which in effect has revolved largely around implementing well-defined knowledge. McIrvine's argument for a shift to innovative activities in the work situation is supportive of the problem-oriented teaching advocated for education. He sees innovation to be the posing of the unprompted question,

involving inductive reasoning and intuitive thought processes—an action response on the part of the person. Implementation, on the other hand, is the answering of a posed question, involving for the most part deductive reasoning — a process of reaction. Whether work in the future can be structured to accommodate innovative needs remains a question, but that should not deter educators from building the process of discovery into the classroom and the curriculum.

Continuing to Grow and Change Through Education

Today's society, as we have seen, demands that youth be much better prepared than were their elders to engage in the world of work. Furthermore, youngsters can no longer expect to learn a trade and relax with the attitude that mastery of it will serve throughout one's life. Retraining and re-education are becoming essential elements in assuring one's continuing progress in the work world. An electronics engineer related that his present work assignments draw most heavily upon knowledge which he has acquired since getting his college degree. His earlier college training involved mastering the vacuum tube, but his work today is solely with transistors. Fortunate for him, he had the vision to continue his education. The demand for higher skills, for more maturity and judgment, and for continuing effort to keep abreast of new knowledge appears to be a reality of today.

Continuing education which serves to further career development is not simply survival-oriented, not merely concerned with assisting the individual to keep relevant with respect to the marketplace. Career development education *over the lifespan* is committed to improving the quality of each person's total life. Upgrading technical skills is an important part of this commitment, but so is stimulating growth in personal, intellectual, political, aesthetic, and scientific awareness. Continuing education allows individuals to look at their work, whether it is paid or nonpaid, and examine its impact on their lives at particular points in time. It enables them to become more richly aware of the expressive themes in their lives, to look at the world with a larger view, and to consider new alternatives in relation to their potentialities.

Recognizing That Our Most Important Problem is That of Human Relationships

To pose human relationships as the central problem of modern society may seem far afield from the subject of career development. But the hopes, the fears, and the uncertainties created by our technical civilization can be realized or resolved only in the human sphere. To a considerable extent we have become what we are because of our interactions with others.

One of the most alarming phenomena of our times is the failure of

human beings to become involved. Recent incidents in several large cities attest to our total lack of concern when another human being is placed in physical jeopardy. We are afraid of the risks of involvement with another. This failure to attend to, to be aware, reflects our more general inability to cope with an environment which we feel is beyond our control. We exist, but we don't; we are present, but we aren't; we listen, but we don't hear. In short, we give little of ourselves. The effect of technical and social progress, all too often, may be a living death. From a career point of view, the consequences may be unused capacities, unrecognized needs, compartmentalized lives, and utter aloneness. Under such circumstances workers will do little more than participate; certainly they will not influence.

A career developmental task of first importance is that of becoming a first-rate human being. Our classrooms offer work laboratories for learning humanistic values, through the relations between students themselves and between students and teacher. We must utilize these laboratories to discover ways of helping young people develop a genuine concern for and responsibility toward each other. Such a venture is not without its own risks, for the core of human relations development lies in self-exploration and self-disclosure. The question is whether our schools are willing to undertake the risks!

Thoughtfully Considering the Conditions Essential for a Balanced and Productive Life

We have maintained in this writing that work can serve as a center of a person's life and a means of self exploration and self expression. If we have appeared optimistic about the value of work for personal development, we have not been naively unaware that there exists, and will continue to exist, many jobs in which workers can find no outlets for their talents, their deeper interests, or their personalities. No one would question that many men and women find enrichment for their lives through religious, family, community, and leisure activities, or through some combination of these pursuits and employed work. But when any one of these facets of our lives is modified in a way as to be disturbing to us, each of the other facets cannot remain unaffected. Our work plays a fundamental part in modulating our behavior and our lives. Young people should be encouraged to evaluate their investments, both physical and psychological, in all parts of their lives and to determine how they want to use work to achieve a balanced life.

It has been mentioned that automation and cybernation produce effects that have important social and human consequences. One notes an all too frequent attitude of resignation in the face of automation — a sense of powerlessness and loss of control. In some school classes when present-day developments are discussed, it is with an aura of

despair. But automation is a tool of individuals, and it can be used by human beings to shape their environment and themselves. Whether it will change us for better or worse will depend on our understanding of what we want and what we value in our lives. It may be easier for our young people to probe the meanings and issues of change than it is for us, for they are not yet fettered with all the constraints of society which make looking at self so difficult. We need to help them examine their values and identify goals for themselves and their society.

Part Four

A CONCEPTUAL SYSTEM FOR CAREER DEVELOPMENT EDUCATION

Someone has said that any road will do just fine if you don't care where you are going.

—Ben Strickland

This chapter and the next have the two-fold purpose of 1) elaborating a conceptual structure for the description of career development education and 2) presenting a process model for development of a curriculum-based program for grades K-12. The approach is organismic-developmental in nature and it combines philosophic validation of valued ends and goals and scientific verification of concepts employed and the means used to reach the valued ends. While the evolving system has come to connote a conceptual management model for career development education, the acronym CDC, standing for career development curriculum, is retained because of earlier recognition accorded it.

One finds today a number of different philosophical persuasions held about career development education. A review of published models and program descriptions suggests a selectivity in stressing one aspect or another of the concept, depending upon the investigator's interest and orientation. Thus, models for career development education may be classified according to whether the investigator has chosen to focus primarily on 1) work or the individual, 2) content or process, 3) work roles or multiple life roles, and 4) training for employability or educating for life. They may further be ordered on a continuum from very narrow to extremely broad points of view—e.g., whether the main emphasis has been placed on *job, work, self,* or *life.*

Since career development education as a formal program is a recent innovation in education, the selectivity involved in choice of concepts and points of focus is understandable, perhaps necessary in order to define and shape instructional and curricular models. Although there does exist a limited science of career development — i.e., a body of theoretical propositions and empirical research serving to explain the process by which vocationally relevant behavior is developed and expressed — comparable descriptions of career development education models which help the teacher and counselor understand how they might intervene effectively in the child's development remain uninvestigated and for the most part unsystematized. In time educators may agree about a set of criteria which will help specify what kinds of selectivity

in observation are legitimate for building such models. Until then, the arbitrary nature of observer selectivity should be welcomed as an inherent aspect of initial attempts at describing a novel thrust in education. However, it behooves those who write about career development education to make explicit their particular predilections, not only their interests and goals but more importantly their prior assumptions about the person in relation to the world. We begin the task of making explicit the assumptions which underlie and guide the development of the CDC conceptual system by returning to a definition of career given earlier.

CONCEPT OF CAREER

To describe a model for career development education requires asking the question, "What *definition of career* lies behind this work?" This apparently obvious question is important because one's definition of career is based upon assumptions that have important educational implications. The authors have selected a definition put forward in a position paper by the AVA-NVGA Commission on Career Guidance and Vocational Education (1973). According to the Commission, the term "career" means a time-extended working out of a purposeful life pattern through *work* undertaken and engaged in by the individual. Underlying the several components of this definition are certain assumptions which have given initial direction to the CDC model.

First, the definition contains the word *work*. Work is conceived broadly by the Commission to include nonpaid employment, educational endeavors, and some avocational efforts. Thus the work of the homemaker and volunteer, for example, would be included. Education for work along with various leisure activities which are undertaken to benefit society or which contribute to a sense of individual purpose and achievement also are considered to be forms of work.

Second, inclusion of the component "purposeful life pattern" suggests that a person's career does not unfold independently of other areas of his or her development. Ultimately the educator must be concerned with the total developing person, and this implies a consideration of how work meshes with other life pursuits in a reasoned style of living. From this point of view, career development is considered a major aspect of personal development, and career development education is seen as a means for helping students learn about themselves and the kind of person they are becoming.

Third, the notion that career is time-extended provides one of the most fundamental assumptions underlying the CDC conceptualization for it connotes *process*—career as an evolving phenomenon. The assumption made is that the individual is in charge of the process, or as Sprinthall, (1971, p. 118) has said, the person is "managing the emergence of a career."

Thus our acceptance of a particular definition of career is of itself a statement of certain preconceptions which will influence construction of the career development education system. This selection is never made in a philosophic vacuum, however. At the most rudimentary level one is asking, "What is the proper subject-matter to be described?" That is, from the entire field of events which might comprise career development education — whether job, work, self, or life in totality — where do I choose to focus my study and attention? In short, the selection of a definition of career involves at a first level a selection of subject-matter, and in the system presented here, it is the person or self that is central.

Having chosen the person (or self) as the central focus of study, one then must ask, at a higher level, what it is this person seeks to achieve and how does he or she go about doing it? This immediately brings to the fore the notion of development, hence our use of the term career development education rather than career education. By development we mean progressive changes over time in the way the person interacts with the environment. In the following pages, the authors describe a conceptualization of development as applied to career. The model has been used successfully in curricular programming for career development education and in the preparation of curriculum materials. Our journey is a metaphorical one in making explicit further assumptions about the person, the world, and the developmental process itself.

THE FUNCTION OF METAPHORS IN DESCRIPTION

The utility of metaphors or analogies in developing theories to order phenomena in an unfamiliar area of investigation has been considered by numerous writers over the past thirty years, most recently by Mehrabian (1968). Thinking people use metaphors implicity as they encounter novel or unfamiliar situations and attempt to conceptualize the contents of the new situation by relating them to a more familiar set of contents for which they have comfortable abstractions. As applied to conceptual model-building, we suggest that the metaphor, or a series of metaphors, offers a rather useful means for explaining an area of inquiry which is novel or unfamiliar. Career development education in its present state of development may be considered to qualify as an unfamiliar and generally unorganized area of knowledge.

It is important to understand that each metaphor has a set of assumptions associated with it (Mehrabian, 1968). When one employs metaphorical thinking, he or she is making explicit certain assumptions considered to be applicable to the novel area of inquiry. Where several metaphors are used to explain a phenomenon, the investigator is forced to resolve incompatible assumptions in striving for logical consistency.

In conceptual model-building, the metaphor(s) an investigator uses is not independent of his or her interests. One has at hand any number

of analogies from which to choose in describing and ordering a set of phenomena. The choice is made in terms of the potential contribution of the metaphor to the problem which most interests the investigator. It is not entirely an arbitrary choice however, for the investigator is obligated to examine alternative metaphors for their respective suitability to the problem of inquiry.

In searching for philosophical presuppositions which are applicable to the problematic area of career development education, we travel a route which leads us to look first at the most general models of human development, i.e., the metaphysical models. Following that we then chart a more circumscribed course in examining theories of a less than general order, theories which assist us to specify more concretely the categories and propositions of the CDC conceptual system.

METAPHYSICAL MODELS OF HUMAN DEVELOPMENT

Each of us carries around within ourselves an implicit model of human nature — a personal theory about "the way people are." This personal theory begins to take form very early in life as we observe and interact with persons who are significant to us. We seldom are able to verbalize precisely our "person theory," but it remains with us substantially unchanged throughout life.

Several writers (Kaplan, 1964; Reese and Overton, 1970; and Overton and Reese, 1973) have shown how personal theory is translated into scientific models of the universe. These writers maintain that all psychological theories of human behavior can be classified into a limited number of broad, metaphysical models. Models at this general level, to use Kuhn's (1962) terminology, are called "paradigms" or "world views" and two such views stand as irreconcilable polar conceptions, namely the *mechanistic* and the *organismic*. Reese and Overton (1970) point out that the basic metaphor employed for the mechanistic model is that of the machine; the universe is represented as a machine, composed of discrete elements operating in a spatio-temporal field. In contrast, the metaphor employed for the organismic model is the organism; the universe is viewed as a living, organized system in search of unity.

As applied in the field of psychology, the mechanistic world view has variously been termed the reactive or empty organism model of man and it stems from the Lockian tradition which assumed the newborn infant's mind to be a blank slate or *tabula rasa*. The organismic view has been referred to as the active organism model, derived from original speculations of Leibnitz that the fundamental nature of the mind consists of its activity. Developmental theorists, with but few exceptions, are aligned with the organismic world view, and it is from this position that the present authors began to build a rationale for CDC. Several philo-

sophical assumptions about the person and the interaction of the person and the environment provide the foundational building blocks of this conceptual system.

Presupposition 1 — The person is the source of his or her acts, therefore behavior is purposive and intentional.

This presupposition contrasts sharply with the mechanistic assumption that man, the machine, is inherently at rest (passive) and becomes active only as a result of external forces in the form of contingency reinforcements. Rather, the human organism is viewed as spontaneously active, striving in purposive ways and as a result of its own initiations. The active intellect molds, arranges, and interprets sensory data in ways that point a direction of future possibilities. The person is internally goal directed.

Presupposition 2 — Each person characteristically evolves, for convenience in managing the environment, a coordinated *system* of cognitive and characterological equipment.

In this representation the person is viewed as an organized entity or *system* which in its totality constitutes a condition of meaning attributed to the world, one that is something more than the sum of its parts. The system is made up of both content (what the person knows, believes, values, etc.) and structure (how the person processes information to solve problems). An educator who accepts an organismic-development model will tend to emphasize process over content. Thus the subject's structural organization—i.e., his or her conceptual patterns or schema for handling social problems — becomes the more important focus of concern. From this point of view, the acquisition of knowledge receives less priority than the acquiring of basic tools of thought which will enable the individual to process information and ideas in a changing world. Subject-matter content and information, while important, are not valued as much as the development of conceptual structures capable of analyzing, interpreting, and synthesizing operations needed to solve problems, make connections of events experienced, formulate plans, and make immediate and long-range decisions.

Presupposition 3 — Development involves the continuing acquisition and restructuring of competencies that have a cumulative effect in the management and enhancement of life.

Development is a process of continuous transition from one cognitive state to another. Whereas from the mechanistic or reactive organism model it is behavior that changes, the organismic-developmental view holds that the structures or functions one uses to organize the world change also. While environmental determinants may facilitate or inhibit

structural changes, they can in no way stand as an adequate explanation of the development process, as we shall see later. The course of development is one of progression from rather concrete concepts and motives to increasingly complex structures involving highly differentiated and integrated abstractions resulting in more versatile management qualities. A developmentalist, according to Rest (1974), "depicts in terms of stages the successive elaboration of more complicated and differentiated structures out of the simpler ones."

Assuming that development is not arrested along the way because of severe early deprivations, gross inattentions during the years of socialization, or later because of environmental constrictions of an unusual nature, one may expect a continuing expansion and elaboration of the conceptual system as a part of the normal course of events over time. While the searching, forward motion of this process is not clearly understood by psychologists of any persuasion, it seems to lead the human organism simultaneously to 1) process information (i.e., receive it, interpret it, and reintegrate it) in qualitatively new and different ways and 2) differentiate a self that is governed increasingly by internal sources of control over the environment.

Presupposition 4 — Development occurs because of a dialectical relationship between the person and the environment.

The organization of conceptual structures which at any given time we may call the person (or self) represents an outgrowth or effect of interaction with the physical and social world. But the organism is never simply a reflection of environmental contingencies, for it at once "influences the course of this transaction, both modifying it and, in feedback fashion, being modified by it" (Harvey and Schroeder, 1963, p. 99). As Overton and Reese (1973) put it:

> ——cause and effect or environmental event and organism stand in a relationship of *reciprocal action* in which each member affects and changes the other (p. 99).

On the basis of the person's inherent activity, the very process of responding to environmental experience alters in some degree previously established conceptual structures — i.e., the person's processes for thinking and acting are changed.

In orchestrating one's transactions with a changing world environment, the person engages in a process of change or development — a process of "becoming," to borrow from Allport (1955). Through successive approximations at interpreting and managing a world of objects and interpersonal events, the person literally constructs a unique, self-in-world reality, expressive of his or her "being" at the moment. Such points in time provide periods of stability which allow for the contem-

plation that seemingly is necessary for further development to take place.

FURTHER PRESUPPOSITIONS FROM THEORY

Metaphysical models provide the most general meaning contexts for understanding the nature of reality, including human nature. At a less general level are various concepts, models, and theories which are more explicit and which allow for the formulation of further presuppositions within the context of the larger metaphysical system that has been adopted. The organismic-developmental perspective with regard to career development education can be further explicated by drawing upon the family of human development theories formulated within the context of the active organism model. This family includes the works of Piaget (Flavell, 1963); Werner (1957); Harvey, Hunt and Schroder (1961); Allport (1955); Erikson (1963); White (1959); and de Charms (1968).

Cognitive Development

Piaget has used the metaphor of biological adaptation to describe the cognitive processes of an organism in its interaction with the environment. Adaptation may be thought of as a process whereby the individual manages the problems of living presented by the environment. The term, it should be understood, connotes something more than a mere survival response, for as Flavell (1963, pp. 45-46) has said, "Adaptation is said to occur whenever a given organism-environment interchange has the effect of modifying the organism in such a way that further interchanges, favorable to its preservation, are enhanced." Adaptation, as a process, consists of two components which Piaget labels "assimilation" and "accommodation." In *assimilation* the organism simply registers or incorporates information available to it from its experiences, without a change in cognitive structure. It is assumed that similar experiences in the future will be processed and reacted to in a similar fashion. However, in *accommodation* the pattern of cognitive structure is modified, a transformation or qualitative difference occurs that affects the way the organism will approach a similar environmental problem in the future.

Assimilation and accommodation operate concomitantly, though in varying proportions, as the individual interacts with the environment. Together they constitute the basic processes by which the person develops the conceptual tools necessary to process information and make symbolic connection and sense of the events experienced. Environmental stimuli and events are mediated through the symbolic-conceptual system and in the course of development the person's world increasingly is differentiated and articulated. To illustrate, one may note the considerable difference between the egocentric, concrete orientation of some

young children and the objective, highly differentiated orientation of some adults. The individual who is able to handle complex cognitive tasks is less compelled to make the world fit into narrow and rigidly bounded conceptual moulds. This metaphoric analysis leads us to state a fifth presupposition, namely:

Presupposition 5 — The more complex the cognitive structure — i.e., the more conceptual rules for selecting, interpreting, and organizing information and experience — the greater flexibility will the individual show in adapting to complex and changing situations.

An implication one may draw from the presupposition is that career development education must deal with "how" the person thinks as much as with "what" content is learned. The necessary challenge is to cultivate in each individual those cognitive skills that will permit gathering information and pulling it together in new and meaningful ways. In short, greater attention must be given to the process goals of learning.

More pertinent to the CDC conceptualization itself is the longitudinal question of how development is ordered, a question which forms the core of the cognitive-developmentalist's inquiry. To answer the question we have to look somewhat beyond the biological metaphor and consider contextual variables along with the intrapersonal factors.

Development when viewed over time is a saccadic process; while it is continuous, it occurs as a series of "bursts" or "leaps." Steady-state conditions are followed by periods of crises in which the person experiences "cognitive inadequacy" in managing problems or events. Applying the biological metaphor to this characteristic of development, it may be said that the person-context interaction provokes a needed accommodation on the part of the organism to elements or events it is trying to assimilate in orienting itself in its environment. Without this "taxing" of the individual's present cognitive skills (a need to modify old concepts to allow integration of the new), there would be little basis for development to occur. Jourard and Overlade (1966) have called such periods of cognitive inadequacy "contradictions" and they speak of psychological growth as the reconciliation of contradictions.

From this analysis it is possible to state a sixth presupposition:

Presupposition 6 — Problem situations in which the individual's cognitive structure is moderately taxed provide the basis for development.

Problem situations are experienced with varying degrees of tension and they give opportunity for a restructuring of the cognitive system, a transition to an enlarged orientation. As we shall see later, individuals seem to have a built-in propensity for seeking out or creating contradic-

tion-ladened experiences. In other words, development occurs whether educators intervene or not. But we hold that a major goal of education is to encourage the development of adaptive capacities. In keeping with this belief, Strom and Tennyson (1975) are currently experimenting with various problem-solving strategies in career development education, including an instructional tool called the "career dilemma."

Beyond these continuous and cumulative changes that occur in the cognitive structure, developmental psychologists have observed that individuals employ unique and qualitatively different patterns of thought-operations at separate points in their lives. Looft (1973, p. 30) says, " 'Reality' is construed or constructed in quite different ways by the toddler and by the teenager." The developmentalist depicts in terms of stages a sequential set of changes in the system, eventuating in more complex forms of conceptual thinking. Thus,

Presupposition 7 — Developmental change is sequential in nature; it occurs in a progressive series of steps or stages based on a logical order of adequacy.

Supported by this assumption, the authors have utilized life stage descriptions of career development as the core of the CDC conceptualization.

Motivation

No theory of cognition, however dynamic, provides all the required foundation for an adequate conceptualization of career development education. While cognitive theory may offer explanations about "how" we learn, a doctrine of motivation is needed to help us understand "why" we learn in the first place. In other words, what is it that accounts for the human organism's active and continuing involvement with the world? Piaget, in his studies of children's intelligence, more or less took the motivational aspect of this involvement for granted (Smith, 1969). In contrast, personality theorists have been inclined to underestimate cognitive development in stressing the dominant place of feeling and emotion or affect associated with motivational arousal. Perhaps most scientific psychologists would agree that there is an appropriate interlocking of mental structures and aroused state, with the manifestation of each, to a degree, contingent upon the other.

Until recently, theories of motivation prevailed in experimental psychology and orthodox psychoanalysis which held in common the basic assumption that all behavior is directed at reducing tension caused by the excited state. According to these theories, tension reduction is brought about through the avoidance of pain and discomfort or through the attainment of pleasurable consequences. In either case, the behavior tends to reinstate organic equilibrium. The tension reduction model, over

the years, has dominated thinking about human motivation, but it tells only half the story.

Developmental psychologists, particularly those who have engaged in direct observational work with young children, have come to the conclusion that motives are of two kinds, although in a given instance the two may fuse. Allport (1955), for example, has borrowed Maslowian terms in depicting what are called deficit *(deficiency)* and *growth* motives. He comments:

> ——Deficit motives do, in fact, call for the reduction of tension and restoration of equilibrium. Growth motives, on the other hand, maintain tension in the interest of distant and often unattainable goals (p. 68).

Growth motives, according to Allport, are propriate in our lifestyle, i.e., they are central to our sense of self and personal existence. Such motives reflect the striving, on-going aspect of behavior which is relevant to the explanation of why we learn. Among the roots giving rise to the notion of growth motivation are Goldstein's (1939) concept of self-actualization, Allport's (1955) "Becoming" as opposed to "Being," and de Charm's (1968) theory of personal causation.

In searching for a metaphor which would suitably capture the anticipatory and striving nature of the person, the authors were drawn once again to the seminal article by Robert W. White (1959) in which he first proposed the concept of competence. In this and later essays (1960, 1963), White argued that it is necessary to make *competence* a motivational concept in order to account for the directed and persistent behavior observed in humans and higher mammals that seems not to serve primary drives. He used the term *effectance*, in distinction from the "drives," to describe a form of intrinsic motivation towards effective interaction with the environment. Competence or effectance motivation is not something that is based on tissue needs, designed to reduce strong bodily urges, but is an *intrinsic* need on the part of the organism to deal with, or better still, manage the environment.

Anyone who has observed young children knows that they are almost uniformly interested in and curious about objects and events; motivated by a desire to play, imitate, and explore in an experimental interaction with the world. From the earliest months of life, the child manifests attitudes of curiosity and exploration, forever looking, searching, grasping, crawling, manipulating, and doing. The need to use the equipment, the potentials that one has, is inherent in each of us.

Research has shown that similar behavior is exhibited by nonhuman primates, such as monkeys and apes, whose activities reflect an opportunistic engagement with the environment. In observing that ani-

mal play and exploration are not secondary to other motivated behavior such as eating or sensual pleasure, Gardner Murphy (1973) said:

> ——After several decades of experimentation with animals on the assumption that they had to be motivated through their visceral needs, given a pellet or dish of bran mash for each "right" response, scientists have discovered with a great bang in recent years that they (the animals) will solve problems for the fun of it, and often leave the food dish piled high to one side while they outwit this baffling problem that must be solved (p. 162).

It goes without saying that the characteristic of intelligence gives the human even greater scope to explore and exploit the environment. And that environment, we must remember, is to a large extent a world of people. Social exploration, if anything, is more prominent and more important in humans than exploration of objects, although both are important. Early social play and later social interaction enable the developing person to acquire the rules and nuances of social communication which are central to interpersonal competence.

The studies offer strong presumptive evidence of intrinsic motivation, leading psychologists to believe that the individual's active involvement and commerce with the environment has a biological basis. But a further explication of "effectance" seems necessary to avoid the controversial assumption that this force in human development is of the nature of "drive" or of the earlier and now discredited "instinct-naming" thrust in psychology. However, our present state of knowledge permits explanatory statements that at best can be considered speculative and contradictory.

For White, effectance motivation has its source in the neurogenic system, deriving energy directly from the living cells that make up the nervous system. Effectance motivation thus is considered to be innate, an inherent "given" from birth on.

J. McVicker Hunt (1963, 1965), while acknowledging that the newborn infant's responsiveness to environmental input may provide the basis for motivation, prefers to emphasize the organism's interaction with the environment as the source of learning. If we interpret Hunt correctly and may extrapolate, affective arousal underlies *effectance* and causes it to be a persistive motive. To speak of affective arousal is to assume the importance of internal states of the organism and internal predispositions which operate in a casual relation to the environment. Whether the affective value associated with a given experience is pleasant and reinforcing or unpleasant and aversive seems to depend on the individual's adaptation level at that moment. When the discrepancy between situational inputs and the organism's adaptation level are large,

distressing affect is experienced and the individual may be inclined to withdraw from the situation. Small discrepancies tend to arouse pleasant affect, although if the situation offers too little incongruity, boredom results, and the individual withdraws and seeks a more novel situation. Growth motivation, when considered in light of Hunt's formulation, inheres in the organism-environment interaction itself. Environmental situations which present moderate challenges stimulate not only cognitive development, but result in a sense of efficacy as well.

Richard de Charms has made a theoretical contribution in his volume *Personal Causation* (1968) which approaches the problem of human motivation in a manner that sheds a slightly different light on effectance motivation. One learns, according to de Charms, that oneself is a source of personal knowledge, a cause that has effects in the physical world. Personal causation, or the striving to be a causal agent, is the basis for intrinsic motivation. Behavior apparently engaged in for its own sake, often involving risk-taking, and always with a degree of sustained tension, is assumed to be "behavior resulting from the striving for personal causation, behavior that results in environmental change that is controlled by the actor" (p. 328). Assuming a favorable interaction with the environment, personal causation (or effectance) is reinforced and perpetuated by the feedback which comes from changes in one's environment — changes that are attributed by the person to his or her own personal behavior. In other words, this motivational force derives from the satisfaction of having accomplished something through one's own choice and by individual effort, or at least from thinking it is so.

Whatever the essential character of "effectance," it seems to have the following characteristics:

1. An organism-environment interaction which leads to learning.
2. The manifestation of exploratory and experimental behavior.
3. The feeling that primary locus of causation for one's behavior lies within oneself.
4. A progressive adaptability in managing environmental input.

This analysis of motivation leads to an eighth presupposition, completing the rationale which supports the CDC conceptualization.

Presupposition 8 — Given appropriate growth conditions, the individual's primary motivational propensity is to manage effectively his or her environment.

We summarize briefly the rationale presented here before introducing the concept of life stages and later the concept of career management tasks which together form the core of the CDC model. To recapitulate, each of us spends our lives trying to understand and manage a

world that consists of real objects and interpersonal events. The thoughts and ideas which are internal to us have a reality as convincing as the external things and events themselves. They reflect our interpretations at the moment — a partial view of the world.

Development through the life-span is one of successive approximations in awareness of the world and ourselves in relation to that world, a continuous testing of the adequacy of one's interpretations and constructions of self-in-world — an effort by each to explore and attribute meaning and coherence to the substance of it all. This is, in essence, what life is about, but it can only be understood, as George Kelley has suggested, if the events of a person's life can be seen acting in relation to the future as well as the present and past (Bannister and Mair, 1968). This point of view suggests that individuals exposed to career development education must be distinguished by their capacity not merely to react to external events but to represent their environment by the changing constructions they place upon it. Within the organismic-developmental framework, these constructural changes can be identified as qualitatively different patterns of thinking and behaving at different life stages.

LIFE STAGES

The CDC model rests upon an assumption that development can be represented by reference to stages. A central theme underling the notion of sequential life stages is that "it is one of the general laws of nature that the simple tends to evolve into and become an inseparable part of the complex, more comprehensive totality" (Harvey, Hunt and Schroder, 1961, p. 19). Our use of the term "stage" in the CDC conceptualization refers to levels of cognitive functioning in terms of a continuous dimension of concreteness-abstractness, but involving also a changing and progressively more adequate self or ego which monitors and is in control of its choices. Cognitive structures and motivational functions interrelate in a reciprocal way with each other and with the environment in the progressive development of the effectively functioning person.

An application of life stages to career development education offers a means for describing the development of career competence. The goal of career development education is to stimulate the student's progress step by step through the stages. Such a step by step description, combining the notions of life stages and career management tasks appropriate to each stage (see Part Five), provides a way of ordering curriculum by enabling the educator to anticipate the kinds of learning experiences students will most likely respond to and profit from. While stages from an organismic-developmental position are age-related (a convenience for the curriculum-builder), one should recognize that it is the sequence of emerging stages that is of primary importance and that individuals will develop career competence at different rates.

Although it is assumed that the stage concept has relevance throughout the life span, the work completed on CDC to date has focused on four stages, grades K-12. A description of these stages follows, giving general characteristics of human development which underlie career management tasks. Each stage is described in terms of the "cognitive style," "conscious preoccupation," and "interpersonal style" typical of the period, with briefly stated implications for career development education.

Attending Stage — (Grades K-3)

Career competence at the primary school level is related to Piaget's preoperational representations period of growth, which takes the child through the first grade or so, and the concrete operational thought period continuing essentially through the elementary years. During the earlier developmental period the child establishes relationships between experience and action and manipulates language and symbols primarily by imitating models and accommodating his or her behavior to the behavior observed in other (Sylvester, 1969). In the latter period the child begins to be able to do mentally what formerly he would do with his hands or through action. Thus actions are internalized through thinking, but the thought process at this level always involves concrete objects and relations that the child perceives.

Perception figures prominently in the child's learning during the attending stage. He or she observes with increasing recognition and discrimination the objective characteristics of objects and their relationships. Increasingly the child is able to take notice of a given phenomenon, to tolerate its stimulus properties, and to differentiate its various aspects.

Just as there is an increase in the child's ability to handle cognitive complexity during the attending stage, so too is growth manifested in ego and interpersonal functioning. Tuckman (1974) has postulated a movement from 1) unilateral dependence and absolute reliance on external authority in kindergarten and first grade, to 2) negative independence and assertion of self in grades one and two, to 3) conditional dependence and being acepted in grades two and three. The progression of development which occurs during this stage appears to follow in order from 1) permission to oppose authorities, to 2) freedom in setting one's own standards, to 3) successful interaction with and mutual respect between peers.

The attending stage also is characterized by an emergence of self-delineation — a discrimination of self from others. In other words, the child asks "How am I similar and how am I unique with respect to others?" Along with self-discrimination, studies suggest that children of primary school age are acquiring some awareness of the world of work, but their understanding often reflects stereotyped attitudes held towards

occupations. Not unrelated to this, other research indicates rather conclusively that a process of occupational elimination or foreclosure already is operating among children in the early elementary grades, if not before.

A primary function of career development education in serving those at the attending stage, beyond providing experiences which enrich perceptions of self and the world of work, is to create an openness with regard to career options. Using a combination of discussion, in-class learning activities, exploratory field experiences, and live and mediated role models, the teacher or counselor can assist the child to form an impression of the range of occupations that make up the work world and the significance of each to our lives. It does seem essential when presenting information or when engaging children in various learning activities that traditional occupational and sex-role stereotypes be challenged, but the challenge should not be exercised in a way that clouds or distorts present reality for the child.

Responding Stage — (Grades 4-6)

At this stage the child faces tasks of greater cognitive and interpersonal complexity. Concrete operational thought characterizes the youngster's cognitions. While perceptual learning still occurs, as it will throughout life, the child now enters a phase of increased conceptual development. This is a period of vigorous industry for the child, whose efforts are now directed in concrete ways toward understanding how the world works.

Behavior during this stage of development reflects more than mere "attending" to phenomena, but involves a voluntary "learning by doing" process. The child is concerned with finding out what he or she is capable of doing. Assuming that development occurs normally without restrictions or unusual constraints, the child completing this stage will feel that he or she understands and can affect the world at a simple level.

Children progressing through this stage tend to identify with parents, adults, and peers in a stereotyped fashion. There is a proclivity to behave in conventional and socially approved ways. It is a period in which the "rules of the game" must be known and strictly applied. As Tuckman (1974) suggests, children may utilize rituals or strive to win external praise and rewards as evidence of their own success and accomplishment.

Self-delineation progresses concomitantly with conceptual development at this time and there is an increasing and more sophisticated discrimination of the behavior of others. Feeling more secure in interpersonal relations, the child now shows an ability to work in groups and learn from peers. Security, however, is maintained by the careful at-

tention given to appearance and reputation, by being socially accepted, and by belonging.

When the child reaches the responding stage, he or she already has acquired an understanding of a number of relationships having to do with career and the work world. The young person is now beginning to conceptualize what formerly was only perceived. It is during this stage, too, that the child progresses beyond fantasy and begins to make choices based on emerging interests. By capitalizing upon these new abilities and interests, the teacher or counselor can help the child to develop a positive self concept and to gain knowledge of occupations, life styles, and the world of work. Learning experiences that involve action seem particularly appropriate at this time — e.g., simulation, games, role-playing, dramatics, and exploratory field experiences. The emphasis should be on doing and trying.

Asserting Stage — (Grades 7-9)

During the years from seventh through ninth grade the individual undergoes great changes physically, intellectually, and socially. The boy or girl must come to accept being an entirely different person outwardly and, to some extent, inwardly. According to Erikson (1963), the major concern of this period is with identity.

Cognitively the child is approaching Piaget's period of formal operational thought, a period in which "he develops the capacity to operate on hypothetical propositions" (Sylvester, 1969). The adolescent who has reached this level of development is capable of abstract thinking and making his or her own thoughts the object of reflection. "A heightened awareness or consciousness, both about self and the world, arises from this new introspective ability" (Breger, 1974, p. 302). The child for the first time shows a concern about the future as well as the present and hypotheses about that future are constructed.

This is a period when once again the child's "sense of self will assert itself; he will challenge accepted standards and methods of operation and attempt to substitute his own as a way of testing his control over himself" (Tuckman, 1974, p. 204). Subscribing for the first time to one value or another and internalizing these ideal values causes the adolescent to develop strong feelings which are displayed at the drop of a hat! The asserting youngster will "freely communicate his views to others and will make every effort to convince them of the rightness of his position" (Krathwohl, Bloom and Masia, 1964, p. 151). It is not until near the end of this stage that the youth is secure enough of his or her identity that deep and meaningful relationships with peers become possible.

The potential at this stage for abstract thought raises many pos-

sibilities for clarifying aspects of the self and learning decision-making processes. Since the young person's preoccupation with self affects mutuality in relationships, career development education might best focus on simulations, hands-on activities, and discussions that permit an exploration of self-characteristics and investigations of the economic and psycho-social aspects of occupations, varied career patterns, and work settings.

Organizing Stage — (Grades 10-12)

This stage marks a continuation of formal operational thought and an expansion of the reflective thought characteristic of the preceding stage. Joyce and Weil (1972, p. 184) state that "In contrast to the concrete action-oriented thought of the child, the adolescent thinker goes beyond the present and forms theories about everything." With an ever increasing capacity, the adolescent who is in the organizing stage can draw inferences which would follow should a given hypothesis be proven either true or false. Furthermore, the organizing person will take steps to test hypotheses in various reality situations.

Having internalized values from past experiences, the adolescent now has reached a level of abstract thinking where it becomes possible to organize those values into a system. This involves bringing together a complex of values and beginning to order them in relation with one another. The reappearance of mutuality coupled with sophisticated thought can be capitalized upon by the teacher through engaging the learner in group situations where values can be discussed and clarified.

The organizing stage is a developmental period in which integration in the form of ego identity occurs. There is a marked shift from behavior based on rules and social roles sanctioned by the group to behavior reflective of a high degree of self-evaluation and self-criticism. Erikson (1963, p. 307) talks about the danger of role diffusion at this stage and states that the principle concern of the adolescent is "how to connect the dreams, idiosyncracies, roles, and skills cultivated earlier with the occupational and sexual prototypes of the day." Only gradually during this period does the abstract thinking applied to self extend to human relationships and moral issues.

Of extreme importance in the facilitation of development at this stage is providing opportunities for adolescents to apply and test their interests, capacities, and values in real life situations. One ultimately acquires intimate familiarity with the world of work by engaging in it, and the process of learning about oneself must eventually include the reality-testing that direct experience can provide best. Teaching-learning strategies that are particularly suited to furthering career development of the organizing adolescent include: 1) on-the-job work experience, 2)

directed occupational experiences of an exploratory nature, 3) guided searches which utilize career resource centers and information systems, 4) career decision-making games and other simulations, and 5) group discussions which allow for feed-back and reflection on experience.

We conclude this chapter by saying that our purpose has been to set forth certain philosophic and theoretical formulations which establish a basis for a conceptualization of career development education. There remains the task of completing the model and translating it into a systematic curricular program for grades K through 12. Attention is directed to this task in Part Five.

Part Five

A PROCESS CURRICULUM FOR CAREER MANAGEMENT

The solution of any problem, the attainment of any goal, requires the analysis of the situation into its necessary parts or elements, organizing them into appropriate means-ends relationships, and employing them in ways consonant with the end sought.

— O. J. Harvey

Career development education is a response to a growing concern among citizens that our educational system must find improved ways to help students acquire and use those attitudes, skills and knowledge needed to deal effectively with the new and challenging problems of a rapidly changing society. Among its several purposes, this current thrust in education is directed at closing the gap between the objectives of our schools and emerging needs of society by identifying important concepts of self and community which too long have been left at the periphery of the curriculum. Career development education emphasizes individual student learning, provides for the development of personal values and self-concepts, enables young people to explore the relationship between their lives and the adult world, and helps them understand who they are and what they can become (Sharpe, 1974). Goals such as these can no longer be left to chance but must become an integral part of the school program.

In this chapter we extend the career management conceptualization that has been presented and consider a process by which curricular-based career development education may be provided in the schools. The Minnesota Career Development Curriculum (CDC), illustrative of one approach to the formulation of curriculum, is described for grades K-12.

Construction of the CDC model proceeded in an orderly, sequential pattern, moving through descending abstractions from global statements of the mature, competent person to intermediate level statements that define life management tasks or competencies and finally to general program or instructional objectives which can be translated into specific observable behaviors and learning activities. The procedure consisted of four major steps, presented below.

Step One: Stating the Value Rationale Undergirding the Program

A first step in formulating a curriculum program is to identify the value premises which underlie the program. Goodlad and Richter (1966) have said that a value-free position is impossible when establishing cur-

riculum. They suggest that the process of deriving educational aims or goals goes back first to a selection among values and that it is incumbent upon curriculum specialists to make explicit the values which support their work. The *rationale* consists of a clear statement of what is considered desirable for students to achieve, including assumptions about human nature and the world. These assumptions, supported by philosophic argument, affect decisions about both the ends and the means of the program under construction.

Step Two: Identifying and Providing Conceptual Definitions of the Relevant Management Tasks or Competencies

Ultimate or global goals are realized by mastering the management tasks or competencies which are specific to different life stages. Career development stages, like physiological or intellectual development stages, are sequential, but not directly tied to chronological age (Antholz, 1972). Each stage has its characteristic tasks of growing and maturing. The second step in curriculum formulation is to derive these life management tasks from theory and research on human development. This is a conceptual process of abstracting from the literature those tasks which are consistent with the rationale.

Step Three: Writing Program or Instructional Objectives Stated in General Behavioral Terms

Conceptual statements of life management tasks and competencies represent general abstractions of desirable behaviors for different periods of development and must be translated into objectives. Instructional objectives represent a descending abstraction and further specification of the broader concepts. They include 1) the categories of knowledge to be acquired, understood, or used; 2) the social and thinking skills to be developed; and 3) the attitudes, feelings, and values to be fostered. Stated in behavioral terms, instructional objectives define the criteria for mastery of the life management tasks.

Step Four: Stating Operational Definitions and Alternative Delivery Systems for Program or Instructional Objectives

Instructional objectives are made evaluative by clarifying their meaning in terms of observable overt actions from which one infers desirable change. Experience indicates that operationalizing program or instructional objectives is most appropriately done when a particular delivery system is being developed. Different delivery systems employing the same objectives will produce different behavioral reactions in the learner. It has been found, for instance, that television film produces behavioral outcomes substantially different from other delivery components such as print materials. Thus operational definitions must be tailored to the specific delivery system.

The above four steps provide the organization for the discussion which follows. Each step was considered in sequence as work on the Minnesota Career Development Curriculum progressed over the past five years. Initially this curriculum project led to the production of teacher resource guides providing a career development base for career education, captured in such titles as "Life Styles and Work," "Values Identification," "Self-Concept Exploration," "Significant Others," "The Social Contribution of Work," and others (Tennyson, Klaurens and Hansen, 1972). CDC has also supported the development of career education programs in a number of schools throughout Minnesota and surrounding states. Most recently it provided the theoretical base for a national project in career development entitled "bread and butterflies" (Walcoff, 1974).

THE CDC RATIONALE

Major philosophic assumptions underlying CDC were presented in Part Four in the form of eight presuppositions. These presuppositions are re-stated here for the convenience of the reader.

1. The person is the source of his or her acts; therefore behavior is purposive and intentional.
2. Each person characteristically evolves, for his or her convenience in managing the environment, a coordinated *system* of cognitive and characterological equipment.
3. Development involves the continuing acquisition and restructuring of competencies that have a cumulative effect in the management and enhancement of life.
4. Development occurs because of a dialectical relationship between the person and the environment.
5. The more complex the cognitive structure — i.e., the more conceptual rules for selecting, interpreting, and organizing information and experience — the greater flexibility will the individual show in adapting to complex and changing situations.
6. Problem situations in which the individual's cognitive structure is moderately taxed provide the basis for development.
7. Developmental change is sequential in nature; it occurs in a progressive series of steps or stages based on a logical order of adequacy.
8. Given appropriate growth conditions, the individual's primary motivational propensity is to manage effectively his or her environment.

Idealistically the goal of the Minnesota CDC is to facilitate development of the fully functioning and effective human being. The educational aim is to develop self-aware, flexible persons who can realize their potentialities and acquire the competencies needed to work out relationships between self and a society becoming ever more complex. Reflected in the presuppositions is a value for liberation through education. Freedom or the capacity to be free is learned; it involves being able to think and value from multiple perspectives and self-generated conceptions of the world. Individuals are considered to be potentially active agents, able to adapt and restructure their environments in constructive and satisfying ways. Studies of psychologically healthy people indicate, among other things, that they assume responsibility for their own activities, utilizing the educational system to explore the range of means available, even generating their own alternatives and solutions to problems.

Several values relating to work were made explicit and agreed upon prior to the writing of program goals and objectives. First, it was assumed that the work people do, whether paid or nonpaid, constitutes a major factor in their styles of living, providing many of the basic motivations for their behavior and conditioning all other roles they will play in society. Second, the staff agreed that economic reward obtained from work is not sufficient to define one's worth. Men and women, given the security of economic stability, seek through their various work activities to achieve a sense of personal significance. Indeed this need for some individuals may assume an importance that transcends economic considerations, as exemplified by certain idealistically inclined youth. Third, an assumption was made that equality of opportunity for all, without regard to race, sex, age or religion must become a part of each and everyone's value system. The CDC staff believe that less attention should be given to measurement of abilities and more attention be given to active exploration and development of abilities.

Drawing upon these value premises, the team defined program goals. The original CDC program goals recently were refined by a group* selected to design a national career development project involving television films and related print materials (Walcoff, 1974). As stated in their revised form, the goals of CDC will enable students to:

1. Develop a clearer, more positive understanding of self — their interests, abilities, values, and interpretations of the events in their lives.

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*Members of the "bread and butterflies" team who revised the original CDC goals included James E. Bottoms, Nancy Pinson, Carolyn D. Raymond, Debera Sharpe, and W. Wesley Tennyson. David Pritchard served in an ex-officio capacity.

2. Exert greater control over their lives through decision-making and planning.

3. Develop personal and interpersonal skills and attitudes essential to success in school and work.

4. Develop greater respect for other people and the work they do.

5. Develop a clearer concept of successful work behavior — the attitudes, skills, and responsibilities demonstrated by successful people at school and at work.

6. Develop skills necessary to gather, process, and act upon information about self in relation to a constantly changing work environment.

7. Relate their immediate experiences and decisions to their evolving career development.

8. See the connection between school and the real world; understanding the relationship between what they learn in school and the problems and activities outside the school (Sharpe, 1974, p. 7)

No assumption is made that these broad goals circumscribe the parameters of career development education. CDC is a guidance-based program. It is recognized that vocational education provides an important component in a comprehensive program of career development education, contributing to world-of-work orientation and occupational preparation for both wage-earning and wage-saving occupations.

CAREER MANAGEMENT TASKS OR COMPETENCIES

Career management tasks are linked in an unique way with life stages in the CDC model. It is necessary, however, to understand that what is meant by life stages differs with different writers. Some theorists treat stages as direct products of maturation. Examples include Gasell's developmental theory and the classical psychoanalytic theory with its psychosexual stages. Other socio-cultural theorists, such as Havighurst, have focused attention upon developmental tasks, treating stages as the natural product of social learning or social experience.

The notion of life stages adopted for CDC derives from the structural tradition of Piaget and other cognitive developmental psychologists. From this point of view, the generation of stages or stage change is a function of both maturation and experience. A structural model of stages assumes qualitative or organizational changes in the individual.

Four stages were identified in Part Four as illuminating distinguishable periods in the career development of young persons as they progress through grades K-12. These are the 1) Attending Stage, grades K-3; 2) Responding Stage, grades 4-6; 3) Asserting Stage, grades 7-9; and 4) Organizing Stage, grades 10-12. We assume that the stage concept has viability in its application to the life-span and that there is a progressive development of career competence throughout life as the individual acquires a mastery of the career management tasks appropriate to each stage.

In formulating the concept of career management, the CDC staff was influenced by Lois Murphy's early work and interest in "ways of managing life's problems with personal strength and adequacy" (Murphy et al., 1962, p. 2). Murphy redefined the popular term "coping," which traditionally referred to mechanisms employed by the individual in defending against internal anxiety, and related it to competence. Thus,

> ——"Coping" pointing to the process — the steps or sequences through which the child comes to terms with a challenge or makes use of an opportunity.

and

> ——"competence" refers to a skill achieved, not to the processes by which a level of competence in a functional area is reached (p. 6).

For Murphy, coping is a process which connotes flexible management of one's environment. Management, itself, would seem to be the better term to use, for it is not so burdened with the connotations of adjustment commonly attached to the word coping. Murphy's definition of competence, in contrast to White's use of the term as a motivational concept, refers to an end state involving skills achieved. For us, the essence of her definition is nicely captured in the term "task," which implies the expansion of one's skills or the acquisition of competencies in new areas. While Murphy's definitions are helpful, we cannot accept her strict separation of process and competence, believing instead that a competence of first order is the capacity to process information in dealing with a challenge or problem. Implicit in the concept of career management tasks is the assumption that mastery of a given task will result in a difference in modes of thinking, a new and different response pattern, not one that is simply a response to an external expectation or problem.

Within this context, the CDC staff drew upon the work of a number of developmental psychologists to define a set of sequential career management tasks. These tasks connote a developing capacity on the part of individuals to construct their experience and control their environment. They are presented in Figure 2.

Figure 2

The CDC Career Management Tasks*

Attending Stages — Grades K-3

1. Awareness of Self
2. Acquiring A Sense of Control Over One's Life
3. Identification With Workers
4. Acquiring Knowledge About Workers
5. Acquiring Interpersonal Skills
6. Ability to Present Oneself Objectively
7. Acquiring Respect for Other People and the Work They Do

Responding Stage — Grades 4-6

1. Developing A Positive Self-Concept
2. Acquiring the Discipline of Work
3. Identification With the Concept of Work As A Valued Institution
4. Increasing Knowledge About Workers
5. Increasing Interpersonal Skills
6. Increasing Ability to Present Oneself Objectively
7. Valuing Human Dignity

Asserting Stage — Grades 7-9

1. Clarification of A Self-Concept
2. Assumption of Responsibility for Career Planning
3. Formulation of Tentative Career Goals
4. Acquiring Knowledge of Occupations, Work Settings, and Life Styles
5. Acquiring Knowledge of Educational and Vocational Resources
6. Awareness of the Decision-Making Process
7. Acquiring A Sense of Independence

Organizing Stage — Grades 10-12

1. Reality Testing of A Self-Concept
2. Awareness of Preferred Life Style
3. Reformulation of Tentative Career Goals
4. Increasing Knowledge of and Experience in Occupations and Work Settings
5. Acquiring Knowledge of Educational and Vocational Paths
6. Clarification of the Decision-Making Process As Related to Self
7. Commitment With Tentativeness Within A Changing World

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*Career management tasks for late adolescence are presented in Appendix B.

This kind of conceptual system provides a framework for writing instructional objectives and developing career exploration experiences

and learning activities. However, the teacher or counselor must recognize that while career development proceeds in a continuous fashion, it also occurs at different rates. Although career competence generally can be described and applied to differing levels of vocational maturity, such descriptions should not be rigidly prescribed. Assessment of career readiness at each stage of development is as important as assessing reading readiness of the five-year old. There seems to be what Piaget calls the "optimal time" for accomplishing tasks, a time when learning is easiest and most efficient. Havighurst (1952, p. 5) speaks of this as the teachable moment, "when the body is ripe, and society requires, and the self is ready to achieve a certain task."

The tasks themselves are not independent entities; rather they are cognitively interrelated horizontally and vertically. *Awareness of self* at the Attending Stage is related to *acquiring a sense of agency*, also at the Attending Stage, as well as to *developing a positive self-concept* and *clarification of a self-concept* at the Responding and Asserting Stages respectively. Tasks at the same stage tend to complement each other in facilitating cognitive and affective development, and those at one level must be mastered if others at the next level are to be acquired most efficiently.

Conceptual statements supported by the literature and consistent with the CDC rationale have been prepared for each of the career management tasks. One task and its rationale for each stage are presented here in order to illustrate the developmental sequence. Supporting statements for all career management tasks are provided in Appendix A.

I. Attending Stage

Awareness of Self — The child differentiates self from environment and others, realizing that he or she is an unique individual. Children at this stage begin to engage in a process of differentiation and integration (accommodation and assimilation for Piaget) which will continue throughout life. This is the first step in development of a positive self-concept. Children can perceive how they differ, though they cannot as yet conceptualize their differences. A good deal of this perceptualization occurs before children start school, but the radical change in their environment when they begin school necessitates a cognitive focus on the task. In school they are faced, often for the first time, with a situation in which their role is the same as that of twenty or thirty age-mates. They must retain their self-awareness in order to build a true sense of identity.

II. Responding Stage

Developing A Positive Self-Concept — At this level children should begin to conceptualize that which they formerly only perceived. Their

self- awareness must expand into a self-concept. McNeil (1966) says:

> ——Essentially, the notion of self-concept is inextricably intertwined with the human capacity to think about the future as well as to recall the past and to blend the two into a reasonable view of the present (p. 69).

The importance of the self-concept for career development is stressed by Super, among others, who says that "in expressing a vocational preference . . ., a person puts into occupational terminology his idea of the kind of person he is" (Super et al., 1963, p. 1). For Super, the process of career development is essentially that of developing and implementing a self-concept. Evidence that the school can facilitate a positive self-concept is provided by Pratzner (1969, p. 36) who concludes that "the maturity of an individual's self-concept tends to vary directly with active participation in group interaction and communication relevant to self."

III. Asserting Stage

Clarification of A Self-Concept — Super states that "self-concepts begin to form prior to adolescence, become clearer in adolescence and are translated into occupational terms in adolescence" (Super et al., 1963). Individuals in Super's exploratory stage of adolescent career development, explore self-attributes and the dimensions or characteristics of the world of work in relation to themselves. They consistently reinterpret their selves in terms of work and career.

IV. Organizing Stage

Reality Testing of A Self-Concept — Having reached this stage of development, students need to check their perceptions of abilities, aptitudes, and other personal resources against external reality. Only by such checking can they effectively determine the career options available to them and act accordingly. As Herr (1969, p. 179) suggests, "One learns through experience and by socialization what kind of person he is, that of which he is capable, what he values."

The career management tasks and their supporting rationales provided the abstract statements needed to move to the next step in development of the CDC program, namely, the formulation of instructional objectives.

INSTRUCTIONAL OBJECTIVES FOR CDC

Questions about the role of objectives in instructional planning remain a matter of issue among curriculum specialists. Eisner (1967) and Kliebard (1968) have argued that the doctrinaire use of behavioral objectives has serious limitations. Three of the more critical concerns are: first, that by stating objectives we may curtail the creativity

a teacher brings to the learning situation; second, that from a moral point of view, the emphasis on behavioral objectives borders on indoctrination rather than education; and third, that the consequences to students from a strict adherence to well-ordered stimuli, as Strom (1974) has said, results in a phenotypic, content-oriented approach to learning.

With respect to the first criticism, the CDC team concluded that the stating of objectives need in no way stifle the creativity of the teacher, but that such statements instead provide the teacher with reference points by which the process of instruction and assessment becomes more deliberate and careful. The second criticism appears to be based upon an utter lack of confidence in the professional competence of the teacher. Whether or not there is indoctrination depends entirely on the manner in which objectives are used. In the stating of objectives and the design of learning activities, the CDC staff has been less interested in value acceptance on the part of the student than it has in value weighing and value clarification. The third criticism strikes a blow at the very intention of many proponents of behavioral objectives, with their emphasis of "minimum essentials" type behaviors, overt and easily observable. But as Strom (1974) has shown, behavioral objectives need not lead to passive listening, copying, memorizing, and reciting. An emphasis on trivial learner behaviors is not a problem inherent in the process of stating objectives in behavioral terms. It is more a matter of the effort that has gone into the writing of the objectives. Translation of complex processes such as problem solving and valuing simply takes more care in specification of objectives.

The problem of how to write objectives has also been an issue, with curriculum specialists disagreeing on the preciseness and degree of specification needed or required. In writing objectives for CDC, the team arrived at a compromise between the recommendations of Ralph Tyler and Robert Mager.

Tyler (1950, p. 30) has stated: "The most useful form for stating objectives is to express them in terms which identify both the kind of behavior to be developed in the student and the content or area in which the behavior is to operate." While Tyler recommends stating instructional objectives in behavioral terms, he does not appear to be greatly concerned about specificity in overt terms. Thus, an objective in Tyler's terms might read as follows: The student should be able to write with clarity and organization in reviewing English books.

Mager (1962) seeks much greater specificity; however he does state that it is not necessary to include all three of his criteria in each objective. His criteria may be paraphrased in the following manner:

First, describe *what the learner will be doing* to demonstrate that he has attained the objective.

Second, describe the *important conditions* under which the behavior will be expected to occur.

Third, state the *standards of performance* expected of the student. An acceptable objective in light of these criteria would be the following:

> ——Given a human skeleton, the student must be able to correctly identify by labeling at least 40 of the following bones: there will be no penalty for guessing. (List of bones inserted here) (p. 49).

Employing the standards set forth by these two writers, the CDC team wrote instructional objectives giving specificity to the career management tasks. Phrasing of these objectives was in accord with Gronlund's (1970) conception of a two-level approach which

> ——includes statements of objectives that are general enough to provide direction, without overly limiting the instructional process, and specific enough to be clearly defined by the behavior that students are to exhibit when they have achieved the objective (p. iii).

Ninety general instructional objectives and 275 specific enabling objectives were written. These objectives — drawn from many sources, including the National Assessment Program — were evaluated and rewritten by some 300 educators attending summer institutes sponsored by the University of Minnesota over a three-year period. They are presented in Appendix C, classified according to the career management task to which they give specification. This classification provides school systems with a useful framework for conducting local needs assessment, establishing priority goals and objectives, and developing appropriate learning activities. Used flexibly, it also provides a substantive base for development of curriculum materials. A CDC teacher resource guide entitled Women and the World of Work (Thoni, et al., 1972) offers an illustration of how a flexible use of these objectives can direct the development of curriculum materials (Figure 3).

Figure 3

Women and the World of Work;
A Teacher Resource Guide

General Instructional Objectives

The student will:

1. Describe how the work contribution of woman is as socially significant as that of man.
2. Identify the reasons why some women may want the stimula-

tion and rewards of a significant activity outside of a family work role.

3. Identify possible sources for the attitudes toward women held by oneself and the society in which one lives.

Enabling Objectives

EO#1 Discovers elements within our culture which have contributed to the continuance of the traditional view of women.

EO#2 Investigates the opinions that contemporary women hold of themselves and their place in the world of work.

EO#3 Reads and discusses relevant literature dealing with women, their traditional roles, and their emerging opportunities.

EO#4 Participates in and observes situations in which women are found in roles other than traditional ones.

EO#5 Identifies several life patterns which might be followed by women and discusses the significance of each in regard to the personal development and family life of a woman.

In the process of progressive specification of objectives, enabling objectives are often omitted. It is a matter of choice for curriculum developers whether they will insert this intermediate step in moving from the general instructional objectives to operational definitions capable of assessment.

OPERATIONAL DEFINITIONS FOR DIFFERENT STRATEGIES OF DELIVERY

It has been suggested that different delivery systems employing the same objectives will produce different behavioral reactions in the learner. Therefore, the CDC team has not concerned itself with operational definitions capable of assessment, except at the point of program or materials development. Strategies for career education delivery include: Counseling (Individual, Group, and Peer); Infusing through the Curriculum (Modules, Units, Courses); Exploratory Work Experiences (Volunteered and Paid); Multi-Media Approaches (TV, Films, Cassettes, Simulations and Games); Hands-On Experiences (Integrating Academic and Vocational); Career Information Resource Centers (Informational and Learning Centers); Role Model Exposures (Including Nontraditional Careers and Life Styles); Cross-Age Teaching (Elementary Schools, Colleges, and Nursing Homes); Local Inservice Training (Staff Development); and Placement and Follow-Up (Educational-Vocational). These strategies are described in Part Six.

By linking implementation strategies to program goals and objectives, career education planners have a base for evaluation, which is a vital part of program formulation and decision making. An operational definition of an instructional objective refers to desired change in a person, expressed in observable overt behaviors. From a representative sample of behavior indicators, one infers that desired change has taken place.

Operational definitions for CDC instructional objectives have been written for curricular programs in Roseville, Minnesota and Mason City, Iowa, each one a federally funded program. To illustrate the form of operational definitions, an example is taken from the "bread and butterflies" curriculum guide (Sharpe, 1974), a component of this national career development education program (Figure 4).

Figure 4

Taking Care of Business

Lesson Theme: The Responsible Self

Lesson Goal: To help students begin to acquire the skills essential to the effective control of themselves and their environment.

Operational Definitions, Level 1:

As a result of the lesson, students should:

- describe what "responsibility" means to them;
- list responsibilities that they now have and responsibilities they would like to have;
- understand the behaviors that are necessary before they will be able to assume responsibility;
- identify the responsibilities of particular work roles that are interesting to them.

Operational Definitions, Level 2:

As a result of the lesson, students should:

- identify ways of acquiring skills that result in added responsibility;
- identify actions that can be taken that will lead to increased responsibility and freedom;
- identify personal goals that they would like to achieve that would give them more responsibility (p. 53).

The career development education model presented in this and the

last chapter is not intended to be prescriptive but rather to suggest career management tasks, objectives, and implementation strategies useful in program development. Utilization of such a model will enable teachers and counselors to become more directly involved in career education program development. It is expected that educators will make adaptations in employing the model in their individual settings.

Part Six

STRATEGIES AND RESOURCES FOR IMPLEMENTATION

The priority at this stage is to build an environment in which the student takes an increasing share of the responsibility for learning; an environment in which he can develop higher level skills in integrating information while seeking the solutions to meaningful, interesting problems.

—Harold M. Schroder

Having identified basic career needs, management tasks, desired outcomes, and a human development rationale for a career development education program, one can turn to questions of implementation. What kinds of methods and strategies can be used to develop comprehensive career education programs? What kinds of resources can be identified and how can they be organized and used? What operational programs are developing that seem to be consistent with career development principles and with developmental psychology as applied to this domain? It is the purpose of this chapter to provide examples of strategies and resources for implementation, as well as a few illustrative programs for examination and evaluation.

DELIVERY SYSTEMS

While a comprehensive career development education program does not exist at the present time, a number of school systems and agencies are developing programs which utilize a variety of delivery systems. Most are not in a position to implement a total program all at once. It is important to recognize that methods, learning activities, or strategies for delivery need to be closely linked to the management tasks and objectives which have been identified for the particular program. If new programs are to avoid the piecemeal and fragmented approaches of the '60's, delivery systems need to be carefully coordinated and monitored rather than simply offering an occasional tryout of somebody's good idea.

A second important consideration is that delivery systems ought to be linked to a needs assessment of the particular population. Selected strategies should coincide with priority needs. Thus, program planning includes selection of methodologies or delivery systems linked to clearly defined and prioritized needs. A number of delivery systems which are being used singly or in combination by schools and colleges attempting to implement career development education were mentioned in Part Five. These are merely illustrative of initial approaches which educa-

tors have developed in emerging programs to date. Within the near future, as might be expected, new systems including variations on those presently existing will be developed. Present delivery systems are briefly described below.

Infusing Through Curriculum. Infusion means interweaving the career development objectives and experiences with other subject matter in the on-going curriculum. For example, students may produce a television show while studying Shakespeare. In addition to examining Shakespeare as a literary form, they would examine their roles in producing the television show and their attitudes toward the experiences. Another experience would be to attend a Shakespearean play and examine the theatre and acting as a way of life.

A number of resource guides for integrating through curriculum have been published (Benson, 1972, 1973; General Learning Corporation, 1972; Tennyson et al., 1972). Units within courses, such as "Who Am I?", "Someone to Talk To," "Exploring Goals," "Information Explosion," "Interpersonal Awareness," etc., offer a primary means for delivering career development education in the Mesa, Arizona Comprehensive Career Guidance Program (Mesa Public Schools, 1973). CDC staff members are now identifying alternative strategies. Units on "Women in History," "Male and Female Images," and "Role and Status of Women" have been taught as part of the program in some Minnesota junior and senior high schools. Counselors in one school succeeded in intervening in curriculum by proposing a series of elective courses on "Psychology of Self," "Psychology of Interpersonal Relations," and "Psychology of Careers." Interdisciplinary offerings involving cooperation of several subject areas have been developed around a unit on pets at the elementary level, a banking unit in the junior high, and a computer experience in the senior high (Laramore, 1972). Neuwirth et al. (1971) report on a program at Hosterman Junior High School in Robbinsdale Minnesota, in which most of the faculty have cooperated in demonstrating a career development interdisciplinary model as a basis for the school's curriculum. The process by which a teacher can refocus curriculum around a career development theme has been vividly described by creative first grade teachers in the Roseville Area Schools (Logacz, Laurich and Hummel, 1975). An annotated listing of additional programs is provided in Appendix D.

Exploratory Work Experience. Many forms of exploratory work experience have been described in the literature. School systems have begun to move away from the idea that such experience is only for the noncollege-bound, and instead different kinds of exploratory experience for all students from elementary school through college have found their way into educational programs. Examples are the St. Paul Career Development Center, a separate learning center to which students in grades

K-6 may elect to go twice a week for tryout experiences in a kind of Sesame Street of St. Paul. They "work" in an office, a travel bureau, a "head" shop (beauty and barber), a factory, a restaurant, a fixit shop, a print shop, and a pet shop, with new businesses added from time to time. Pupils also make numerous visits to local businesses and industries and have community guests visit them at the center.

An innovative example at the junior high level is WECEP, a Work Experience and Career Exploration Program begun for potential dropouts in the Minneapolis Schools and later transported to a number of other school systems. Students spend a half day in regular school classes and a half day working for pay in a business or industry; the emphasis is on self-concept building through success experiences and positive reinforcement under the guidance of a WECEP coordinator. The Robbinsdale, Minnesota School System also has extensive junior high exploration options, including social studies classes doing volunteer work with mentally retarded children, elementary children, and senior citizens, and "Time Out" days for exploratory experiences related to interests and hobbies.

At the senior high level there are many paid and unpaid opportunities for exploration, from the traditional cooperative vocational education programs (which are being expanded to include more students and more occupational areas) to student community involvement projects, shadowing workers, unpaid apprenticeships, and internships. One of the earliest and most comprehensive is the Whittier, California Exploratory Work Experience Education Program which has six options, with every senior high student involved in at least one of them.

Career Information Resource Centers. Career information resource centers under a variety of names have been created in many communities across the nation. They take different forms and focus, but the major goal generally is delivery of information services to students in more creative and diverse ways. Centers have emerged in elementary, junior, and senior high schools, such as in Orange County, California; others have been established as district or regional programs, such as the Regional Career Information Centers in San Diego and other parts of California; and a few appear as Community Career Centers, such as Cottage Grove and Inver Grove Community College in Minnesota. Some are staffed by paraprofessionals, such as the Marshall-University High School Career Resource Center (described later in this chapter); some by volunteers, such as the Mechanic Arts Career Resource Center in St. Paul, but coordinated by a school counselor; some at least partly staffed by students; and several jointly handled by a team of teachers and counselors. One model has used the approach of a "Life Style Center" in which school and community resource persons (e.g., teachers, coaches, school secretaries, plumbers, radio announcers, law-

yers, technicians, etc.) rap with students about their life style and how they feel about it. The CRC's offer an excellent opportunity for staff, students, parents, and community workers to be creative in making more accurate, comprehensive, and personalized information available for career decision-making. They are discussed in greater detail later in this chapter.

Multi-Media Approaches. With the burgeoning of materials and media in career education, many more print and nonprint resources are available — from kits, cassettes, and computers to games, simulations, and programmed learning. Since the commercially or school-produced media are not of uniformly solid quality, they need to be carefully evaluated before adoption or adaptation for use. In addition to the direct student media, some school systems have created multi-media presentations to inform parents and community about the career development program. These include the Roseville, Minnesota Career Development Project; the St. Paul Schools Career Education Project; and the Mesa, Arizona Comprehensive Career Guidance Project. A number of simulation games have been created at all levels, K-post-high. Sound utilization of new technology offers a promising vehicle for achieving career development education goals.

Hands-On Experiences. Experiences to involve students in task performance have been developed as one kind of career exploration — essentially a Dewey "learning by doing" philosophy. These experiences range from the New Jersey Technology for Children Project which unifies academic and vocational aspects of curriculum around a series of learning episodes; to the Developmental Career Guidance Project for inner city youth in Detroit which employs a variety of similar experiences (Leonard, 1973); to the St. Paul Career Development Center which involves hands-on experience for elementary children; to the Dallas Skyline Career Development Center, an ultra-modern senior high school which provides simulated work experiences and vocational training.

Exposure to Role Models. One of the concerns in emerging career education programs has been that some students — especially women, minorities, and rural youth — may have had exposure to only a few models and thus have limited awareness of occupational and life style options. School systems have initiated a variety of programs designed to make a wide range of role models available to students. Some involve parent and "community talent" in classroom instruction. For example, project BEACON in Rochester, New York, includes exposure to diverse life styles of various ethnic and occupational representatives. Other approaches include a publication called "Possibilities" in the Los Angeles School System, in which 100 workers talk about their jobs and life styles; the "Life Style" rap sessions available by telelecture are used in

one career resource center; and several types of one-to-one experiences in which students have the opportunity to observe, talk and work with people they would like to emulate or workers in fields they would like to explore (Boss for A Day, Shadowing, Internship, Volunteer Apprenticeship, etc.). A number of films, video and audio cassettes, and film slide presentations are being developed to provide a greater variety of indirect role models for females, including a video cassette on Life Career Patterns of Women filmed at the University of Minnesota as part of a Career Development of Women Series.

Cross-Age Teaching. There has been a growth of interest in this strategy as schools and communities attempt to bridge the generational gaps and help young and old appreciate each other and learn more about other life stages than their own. Numerous programs have involved junior and senior high students in teaching and tutoring elementary age children and learning something about early childhood and about parenting. Programs involving the senior citizens in the schools are on the increase, not just youth helping the aged and aging in community service projects, but having the senior citizens identifying and using their talents and experience in diverse ways in the schools. The St. Paul Open School has a systematic cross-age program, with senior citizens teaching classes such as lapidary, serving as aides, and working in a variety of capacities with young people from K-12. It is likely that with the growing numbers of retired adults and with concern for keeping them active, these strategies will multiply.

Counseling — Individual, Group, and Peer. Individual counseling as part of the delivery system for career development education is continuing to grow, as students need help in such areas as self evaluation, value clarification, and decision making. While there is not complete agreement on the role of the counselor in career development education, it is likely that he or she will have a key function to perform in helping to shape and reshape programs based on career needs of students. Strategies such as life planning labs are being widely used on college campuses and are equally adaptable to high school settings; group approaches such as strength groups, pupil potentials labs, guide groups, and personal assessment and career exploration groups are needed to assist students to synthesize their career education information and experiences. The values of peer counseling are beginning to be recognized and assessed, and such programs as those at Belmont High School in Los Angeles, Gunn Senior High School in Palo Alto, and the Youth Research Center in Minneapolis are getting wide acceptance.

Local In-Service Training. While a number of school systems have started career education programs with staff development, not all in-service efforts have achieved the desired outcomes. In many cases there has not been adequate attention given to organizational diagnosis and

assessment of the impact of planned career development change. In some instances the inservice education has consisted of one outside speaker brought in for a fall workshop with no follow-up or plan for involving staff in a phased program over a period of time. Among organizations that appear to have had some success with inservice are the Robbinsdale, Minnesota Schools, one of the first to initiate a program for career development education; Mason City, Iowa, which has conducted summer workshops giving inservice credits; Mechanic Arts High School in St. Paul, with an inservice program planned and implemented by building staff; the Roseville, Minnesota Career Development Project, in which three project teachers demonstrated materials and methods for 60 volunteer elementary teachers and later for all the elementary teachers (and some secondary staff as well); and the Mesa Comprehensive Career Guidance Project in which teams of teachers and counselors from K-12 learned some of the tasks related to program development and management. Since 1968, the University of Minnesota, using an interdisciplinary approach, has experimented with a variety of inservice models for career development education (Hansen et al., 1973).

Placement and Follow Up (Educational and Vocational). Perhaps the least developed strategy in career development education programs, or least widely employed is that of placement and follow-up. Jefferson County, Colorado was given responsibility for developing this component of the United States Office of Education Comprehensive Career Education Model (CCEM), but little has been disseminated by the chief government contractor thus far. There is some disagreement on the meaning of the word placement, but it is emerging as a much broader term than originally defined, encompassing placement of students in school courses and exploratory stations outside the school walls, as well as in educational-occupational settings at the termination of the secondary school experience. One example of a broad-based placement and follow-up program is that developed by Lillian Buckingham, counselor in the Baltimore County Public Schools, Maryland. Her definition of placement would appear to include what others call exploratory work experience, and involves role modeling, cross-age teaching, and shadowing. Gysbers (1973) has established a Center for Counseling, Guidance, Placement, and Follow-Up at the University of Missouri and has spearheaded the development of state plans for these areas. The Research and Coordinating Unit of the Department of Vocational-Technical Education at the University of Minnesota is experimenting with a placement model in three schools; it is called Student Placement and Career Exploration (SPACE).

These, then, are some beginning delivery systems being used to implement career development education. It appears that many of these approaches focus more on world of work informational goals than on the self-development goals espoused in this monograph. While both

are important, delivery systems emphasizing the latter need to be identified, created, field tested, and evaluated if the broader goals of a humanistic career development education program are to be realized. The opportunities for creative teachers, counselors, and community representatives to become involved in such program developments are unlimited. The next section provides questions, guidelines, and suggestions for those especially interested in identifying, organizing, and utilizing resources in the implementation of career development education.

IDENTIFYING, ORGANIZING, AND USING RESOURCES

If the objectives of a career development curriculum are to be realized in a comprehensive, sequential program, ways must be found to 1) identify, organize, make accessible, and disseminate all types of materials and media which can be used to facilitate student career development; 2) identify human and nonhuman resources available to both students and professionals; 3) train students, paraprofessionals, teachers, and others in the use of the resources; and 4) relate the resources, materials, and media to individual career exploration and to classroom units, methods, and projects. While information is not the only important aspect of career exploration and decision-making, it is a very important one — especially defined broadly as information about self, about options, and about the career decision-making process. However, for such information to have maximum value, attention must be given from grade one on to development of the student's information processing skills — i.e., those skills of differentiation and integration such as comparing and contrasting, valuing, generalizing, and predicting.

A number of considerations need to be kept in mind in selecting and utilizing resources. General principles of program design apply to career information resources and to other aspects of career development education. Selection of resources should be based on the nature of the population(s) being served, student characteristics and career needs, objectives of the program, the setting, methods to be utilized, and, of course, the budget available. Differential effectiveness of various media for students at different levels of development should be examined. Briefly, an organizer of career information resources might ask the following types of questions:

1. Who will be the major user — student, parent, or professional?
2. What ability, interest, and developmental levels need to be met?
3. What variety is necessary in types of information — e.g., occupational manpower and womanpower trends, vocational training, college, financial assistance, employment, military, Peace Corps, etc.?

4. What variety is necessary in media in order to reach the student's channel of accessibility — e.g., kits, films, filmstrips, audio and video cassettes, computers, books, etc.?

5. What training will be necessary for the users and who will provide it?

6. How will the resources be publicized, accessed, and disseminated?

7. How will the career development resources relate to other school and community resources?

3. How will the materials and resources be evaluated?

Guidelines

While materials and resources to aid in facilitating career development seem abundant, there is a need for development of guidelines for their utilization. In the last few years there has been a tremendous spurt of commercial materials on the educational market, not all of them sound. One needs to evaluate the materials carefully, for accuracy, recency, readability, usability, interest, and relevance. Some questions which might be asked are: Do they really do what is claimed for them? Do they have a valid conceptual base? Are they appropriate for the developmental level of the students? Do they have a significant impact on career awareness, exploration, or placement? Or are they materials which do not really produce the desired result but leave the user disappointed and with the same information deficit? Do they truly contribute to the larger goals of the career development education program? Are their goals consistent with what is known about career development in the mid - 1970's?

If materials need to be evaluated, so too must recommended model programs be assessed. Most of the programs described in the ERIC-NVGA monograph on *Career Guidance Practices in School and Community* (Hansen, 1970) were genuine efforts of educators and lay people who wanted to "do something" about career guidance. While a few of the programs were carefully researched, others lacked any kind of conscious design — i.e., systematic specification of objectives, individual and environmental needs, teaching strategies, and evaluation devices and procedures. While many were "model programs" in the sense of being innovative, and the precursors of the current emerging comprehensive programs, they were often lacking in both formative and summative evaluation. Many of the more recent programs do not fare much better under careful scrutiny. While there are several, identified later in this chapter, which seem to be consistent with career development principles, others appear to be at odds with what is known about human development and in fact focus more upon disseminating occupational information and

offering preparation for employment than they do about facilitating the career development of individuals.

A few published resources provide guidelines for evaluating programs. Among these are *Planning, Developing, and Field Testing Career Guidance Programs* by the American Institute for Research (Jones, et al 1972); "Guidance-Based Models for Potentially Effective Career Education Programs" in the CAPS-APGA monograph, *A Comprehensive View of Career Development* (Walz, Benjamin, and Smith, 1974); and the Walz-Dworkin chapter, "An Evaluation Model for Guidance," in David Cook's *Guidance for Education in Revolution* (1971).

Perhaps the most important guideline that we might state relates to the conditions a teacher or counselor creates which lead to students acquiring information search behavior. If students are to become autonomous, they will need to develop independence in use of resources. Unfortunately the content-based, agent-oriented education which continues to prevail in most of our schools does not provide the individual with the ability or means to use information in solving problems, and even less to generate new information. What is called for is the creation of process environments that give individuals opportunities for choosing, time for independent study, small group interaction, and learning activities which allow them to acquire information through their own efforts and where the pattern of their search is critiqued by the teacher. In process education the teacher functions as a manager of the child or adolescent's learning environment. To paraphase Schroder et al. (1973), students in a process learning environment are encouraged to:

1. Actively explore their worlds.
2. Seek out new and relevant information in problem solving.
3. Combine and recombine information from several vantage points.
4. Connect, organize, and use different perspectives when thinking and making decisions.
5. Show flexibility and willingness to change behavior if a better way of behaving is discovered.
6. Remain open to new information.
7. Be adaptable to the changing environment.
8. Make complex value judgments.

Another important guideline has to do with identifying the career needs of the populations served. The "Counseling Priority Needs Survey" developed by the Orange County, California School District (Johnson, 1972) can be helpful, as can the needs assessment tools used in the Mesa Comprehensive Career Guidance Project and described in

the brochure entitled *Toward Accountability* (Mesa Public Schools, 1973). The resources available should be geared to the needs of all the subcultures within the student population, comunicating the idea that career development education is for all. Thus the resource component of the program needs to attend to the full diversity of users, providing sources of information for Blacks, Chicanos, Indians, white Americans; for the special needs of females; for the early-committed junior high student; for the uncommitted senior who is undecided; for the employment bound; for the college bound; for the immediate job seeker as well as the long-range planner; for all kinds of planners and decision makers, including those who decide not to decide. From "Freddie Fate" who thinks "It's all in the cards so why bother?" to "Penelope Planner," the perfect decision maker who has the emotional and rational factors in balance, both human and material resources should be available (Kroll et al., 1970).

Classifying Instructional Resources

The kinds of experiences that it is possible to provide for a child or youth in school cover a wide range, from the most abstract to the most direct. These are illustrated in Figure 5, an adaptation of Edgar Dale's well known "Cone of Experiences" (1954). The figure shows the interrelationships of the various media, as well as their individual "positions" in the learning process.

Looking at the cone, one sees that each division represents a step between the two extremes — between direct experience and pure abstraction. The conventional teaching approach is located at the apex — at a position which emphasizes teacher talk and the printed word. Those who support career development education do not advocate the elimination of the abstract, for it is crucial, but they believe firmly that the starting point for instruction is direct experience. One reason that experience in career development education is so important stems from the fact that children today are largely sheltered from the world of work — a complex world that is hidden from view. A career development curriculum for all students, at every level, must start as closely as possible to their direct experience. Thompson (1967, p. 6) has hypothesized that the closer the occupational experience is to the real situation and the more it allows an individual to adapt information to his or her own particular use and needs, "the more likely it is to be internalized and to have an effect on . . . vocational development and career progress." He cites the need not only for the use of creative media but also careful research in testing the relevance, effectiveness, and applicability of the media at various stages of career development.

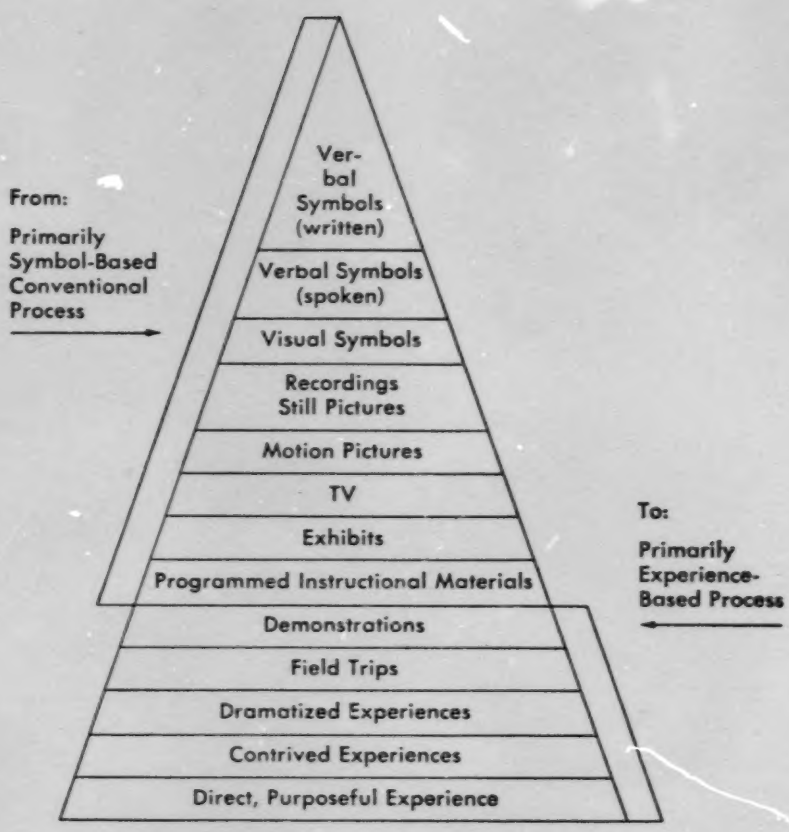

Figure 5

Cone of Experiences*

*Adapted from Edgar Dale, *Audio Visual Methods in Teaching*. New York: Dryden Press, Revised Edition, 1954, p. 43.

The base of the cone, the first division, represents direct, concrete reality; it provides the *basis* for effective learning. One might say it is the "hands on" kind of experience involving direct participation. On-the-job tryouts and directed exploratory experiences are examples of direct, purposeful experience.

As with direct, purposeful experience, a contrived experience, the second division, also involves hearing, seeing, handling, and other sensa-

tions, but it differs from the real thing. It is an "editing" of reality, an imitation of the original. Simulations, games, models, and mock-ups all are examples of contrived experiences.

Dramatic reconstructions can help students get close to certain realities that are not available at first hand. Through "role-playing" experiences individuals gain insight into themselves and others.

The three cone bands discussed thus far involve *doing*, and the emphasis shifts more to observation when we arrange for students to take an excursion or field trip to business and industry. However, the field trip gains in directness when students are allowed to question the workers. Thus the cone is not a perfect representation of levels of abstractness; depending on the initiative of the teacher, the bands can overlap.

A visualized explanation of an idea or process is called a demonstration. A creative instructor may use a felt board to demonstrate labor force trends or other data. Career speakers are often asked to demonstrate certain aspects of their jobs.

Programmed instructional material is the next level of abstraction. In using workbooks and independent learning packages, students are actively "doing" but they are working with visual and verbal symbols as well. Activities may be designed to give the students opportunities for exploration of the community.

In viewing an exhibit, students are cast in a spectator role. Usually they will not handle anything or work with the materials. The career fair is an example of an exhibit.

Television and films offer similar types of experience, the difference being that TV may capture live events as they happen. The unique value of the film and television lies in their sensory concreteness, their realism, their emphasis upon persons and personality, their ability to dramatize, to highlight, to clarify (Dale, 1954).

Our next division on the cone includes a variety of visual or audio devices which are used with filmstrip or slide projectors, opaque projectors, and playback systems. While audio tape recordings and still photographs can capture events on location, they lack the stimulus qualities of the motion picture.

Abstract representation is substituted for realistic reproduction in the use of visual symbols. Perhaps the chalkboard is the most widely used medium for communication in this language. Charts, graphs, diagrams, and time charts are other examples.

At the pinnacle of the cone are verbal symbols, spoken and written, which bear no physical resemblance to the ideas or objects they represent. This is the most abstract form of experience and is reflected in lectures,

books, monographs, and computer programs.

As we have shown earlier, a function of development is to move from concrete to abstract thinking. Too often, however, the abstractions that students are taught are nonfunctional because they are not acquired out of experience. We seek through career development education to provide young people a broader experience base and to help them attach meaning to their experiences.

There are other writers who have come up with different schemas for classifying resources. Samler (1961) has been critical of the focus of much occupational information on what he calls "Economic Man" (and presumably Woman) rather than on Psychological Man. He argues for a clearer presentation in occupational literature of psycho-social aspects of work — what work means in the life and life style of the individual. Hansen (1970) has classified illustrative programs of career information on the basis of whether they are 1) sequential or developmental in nature; 2) units within courses; 3) occupations courses; 4) coordinated school-community programs; and 5) those utilizing advanced technology (multimedia, computer-assisted guidance, and simulation). The *Handbook of Career Guidance Methods* (Campbell et al., 1973) identifies eight method clusters similar to those already mentioned. Another yet unexplored way to organize resources for a career development curriculum would be according to intended student effects, based upon developmental tasks placed in a psychological sequence. For example, it would be helpful to have a classification of resources, materials, and programs which is geared to 1) improving self-concept; 2) developing a sense of planfulness; 3) facilitating career maturity; 4) increasing career information base, and the like.

To further the teacher or counselor's thinking about career information resources and programs and how they relate to the career development exploration process, the following questions are posed:

1. What kinds of information and resources do students in a particular school and at different developmental levels need? What kinds of information are most important?

2. What kinds of information and resources exist and how do students have access to them?

3. How do students come to know what information they need and when they need it? How do they obtain it and use it in their own self exploration, career exploration, and career decision making?

4. How can resources and information about self and educational-vocational options be used to open possibilities for students rather than prematurely narrowing, slotting, or channeling?

5. How can the huge occupational world be brought down to manageable size so that students, parents, teachers, and counselors have a conceptual map or framework within which to start examining possibilities?

6. What are some of the most effective media and resources through which students at different levels and with varying needs can be assisted in their career exploration?

7. What are the respective contributions of person and machine, the human versus nonhuman resources which can be used to facilitate career development? What combinations of human-material resources can be used effectively?

8. What are the main organizing, administering, and staffing patterns in which the goals of career development can be realized through utilization of resources and media?

9. What kinds of professional and paraprofessional school and community resources can be found to assist in the career development program?

Career Development Resource Centers

The ideal of organizing resources into some kind of information center is not particularly new. There are many different approaches employed around the country: the Regional Career Information Center and Project VIEW in San Diego; the Career Information Center in Herman Ridder Junior High School, Bronx, New York; the Career Guidance Centers in Orange County, California; the Indiana Career Resource Center in South Bend, Indiana; the Career Resource Center of Northeastern University in Boston; the National Career Information Center in Washington, D.C.; and the Community Resource Center in Robbinsdale, Minnesota, to mention a few.

Circle et al. (1968) describe a comprehensive "Career Information Program" organized and implemented in the Newton, Massachusetts Public Schools. The model includes a Career Information Library, a Job Placement Service, a Follow-up Service, and a Career Guidance Resource Center. Circle offers the following guidelines for developing a career information library:

- Develop an adequate rationale or statement of purpose for introducing the service to your school.
- Assign responsibility for coordinating the service to one person.
- Budget funds for career materials on a regular basis.
- Establish criteria for acquiring materials.

- Locate reliable sources of information.
- Develop a workable classification and storage system.
- Utilize good business management practices.
- Establish open communication networks.
- Recognize that location may determine effectiveness.
- Work closely with school library personnel.
- Keep career information up to date.
- Keep administrative rules and regulations to a minimum.

The Newton Project seems to be a well-designed and evaluated model, and the project report itself would be a valuable resource for any system wishing to organize a career information service.

Another kind of career resource center is that which involves community volunteers to assist students in a variety of ways. The Marshall University High School Career Resource Center in Minneapolis was somewhat of a pioneer in this area in that it recruited and trained volunteer representatives from the National Council of Jewish Women. These women studied career development philosophy, career guidance methods and materials, interviewing techniques, computer interaction, referral sources, and the like. The program offered a framework for utilizing materials and resources to unify curriculum around a career development theme. Conceived as part of the counseling and guidance program, the Career Resource Center drew upon the experience of others, adapting promising practices tried out in other places, capitalizing on multimedia available (within the confines of a limited budget), and — probably its most unique charateristic — utilizing trained volunteers as well as professionals in relating the resources both to the community outside and the classroom within.

The Volunteers in Career Guidance Project (Hansen, 1971) at Marshall-University High School in Minneapolis, Minnesota can best be described as people, a place, and a program. The *people* were the counselors who organized the program, volunteers (each of whom spends a half day a week staffing the resource center and performing other career guidance functions), parents involved in identifying learning sites and using materials, teachers bringing classes to the center, students who were the primary users, and a Student Careers Committee which served as a kind of steering committee to generate ideas for development and use.

It was a *place* — an attractive, warm Center with a homelike atmosphere and empathic staff. Assembled and displayed in the suite was

a wide array of media — printed, audio-visual, kits, games, cassettes, computer terminal, job data bank for students, curriculum guides, and learning packages. It was a place where systematic career information sessions (e.g., career family of the month) were held; where special classes for interest groups convene (led by student and adult volunteers with special talents); where vocational school and college representatives and job counselors talked with students; where students and faculty could communicate with people in different jobs and with different life styles via a telelecture system; and where students came to browse or be put in touch with community resources.

It was a *program*, the beginning of a developmental career guidance program and a focal point for counselors to provide greater "delivery of services" to students. It was conceived as a home base for a sequential program of career development education, grades 7-12. It was a career learning center through which counselors and paraprofessionals consulted with teachers on occupations units, psychology of careers classes, life career games, and various curriculum materials. Compilation and continuous revision of a directory of in-school and community resources was one of the major projects undertaken by the staff.

While such a resource center is not without its problems, it is one way to organize a career development education program. At Marshall-University High it was a beginning strategy. The Center provided a vehicle for getting students out into the community and community into the school, implementing systematic experiences in grades 7-12, offering consultative services to teachers, giving placement assistance, making human and nonhuman resources more visible and accessible, and helping students at various developmental stages and with differing career needs to get assistance from concerned, caring adults who had been trained to help them find and use information and resources in developing their potentialities. It was a process environment created to facilitate career development of adolescents.

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APPENDIX A

Career Management Tasks, K-12

ATTENDING STAGE — PRIMARY (P)

This level encompasses the school years K-3. It is essential that career development start here, if not earlier. Nelson (1963) found that the occupational elimination process starts early in the elementary grades. In light of Luchin's primary effect, i.e., that which is learned first carries most weight in ultimate decisions, teachers must avoid misinformation and misconceptions leading to occupational foreclosure. Gysbers and Moore (1967) have stated that:

> ——The lack of formalized career development programs will not result in occupational knowledge and value vacuums in students. On the contrary, occupational values and attitudes are formed (usually on the basis of fragmentary and incidental information) and are used as the basis for judgment. These inadequately formed values and attitudes concerning the work world (occupational stereotypes) provide a restricted and clouded view of the wide array of educational and occupational opportunities which may be available and in turn may produce inappropriate educational and occupational decisions (p. 3).

Justification for the placement of the tasks comes largely from the work of Piaget and Erikson, with corroboration from other developmental psychologists. It is about this time that the child normally develops what Erikson (1968) calls the "sense of industry." Sooner or later, Erikson (p. 123) says, all children "become dissatisfied and disgruntled without a sense of being able to make things and make them well — even perfectly." This period also corresponds with Wellman's (1967) learning phase of perceptualization, in which the focus is on the process necessary for an individual to become aware of oneself and one's environment and to differentiate among them (Gysbers, 1969).

P1. *Awareness of Self* — The child differentiates self from environment and others and realizes that he or she is an unique individual. He/she begins the process of differentiation and integration (accommodation and assimilation for Piaget) which will continue throughout life. This is the first step in the development of a positive self-concept. Children can perceive how they differ though they cannot as yet conceptualize their differences. A good deal of this perceptualization takes place before children start school, but the radical change in their environment when they begin school necessitates a cognitive focus on the task. In school they are faced, often for the first time, with a situation in which their

role is the same as that of twenty or thirty age-mates. They must retain their self-awareness in order to build a true sense of identity.

P2. *Acquiring a Sense of Agency* — This task is related to awareness of self; unless children can see themselves as separate beings, they cannot see themselves as causal agents. At the same time, it is through realization that they can in some manner control their environments that self-awareness is facilitated. It is at this task that so many of the disadvantaged fail (Kohl, 1967), with devastating effects on their later lives. It is important that children have some kind of success in early encounters with any task if they are to have the confidence and desire to continue with that task, or any other. As Parnell (1969) states:

> ——When a youngster feels able to do a job—no matter what it is, so long as it is important to the child—he feels unique, confident and assertive about himself, and when he is happy with himself, he feels more tolerant toward others (p. 15).

This sense of control over one's destiny is essential to the child's ability to assume responsibility for his or her own actions, which should develop in this period.

P3. *Identification with Workers* — The concept of identification, articulated so clearly by Freud in relation to sex role development, extends to career development. Role models exert a powerful influence at this time (Tiedeman and O'Hara, 1963). Erikson (1968) has stressed that:

> ——Children now also attach themselves to teachers and the parents of other children, and they want to watch and imitate people representing occupations which they can grasp — firemen and policemen, gardeners, plumbers and garbagemen (p. 122).

This is an important step in the child's progression from "Work is something other people do," to "I am a worker." If the child is not given the opportunity to identify with workers, either at home or through the school, work adjustment will be much more difficult.

P4. *Acquiring Knowledge about Workers* — The child at this stage generally has an insatiable curiosity about the world. Because of this interest, it is easy to provide basic information about a large variety of workers, especially if their work is visible. This interest tends to focus around the home and neighborhood; so then also might the information. Knowledge here implies more than having the teacher tell the child about workers. Piaget, Dewey, Bruner, and Erikson, among others, stress the importance of involving the child as an active agent in learning. Allowing the child to go out and talk to his or her family and neighbors about their work facilitates competence not only with this task but with

the previous three as well. The more knowledge the individuals gain at this time, the less likely they are to develop misconceptions and negative attitudes, which are far more difficult to eradicate than they are to prevent.

P5. *Acquiring Interpersonal Skills* — Again, this task is built on and contributes to the earlier ones. This task is crucial to children entering school. Not only must they learn to get along with an authority figure who judges them on quite a different basis than do their parents — i.e., on the basis of what they produce — but they also must begin to cope with age-mates. Hurlock (1964) stresses that "From approximately the sixth year, socialization is of paramount importance." This is the gang age: how the child gets along with the other kids will make or break him or her socially for the next few years, at least. There is evidence (Pressey and Kuhlen, 1957) that children who are not accepted by their peers in the elementary years are likely to have trouble all their lives. Authorities also point out that the teacher can, especially through group work, help an underdeveloped child to gain acceptance.

P6. *Ability to Present Oneself Objectively* — To achieve this goal of "objectification of self," children must cease to consider other people as objects and recognize their humanness. If they can do this, they can then recognize their own humanness. They must be able to reveal themselves in their strengths and weaknesses to others. Piaget stated that students should have many opportunities to work in group activities that free them from their egocentrism and cause them to interact (Flavell, 1963). There are three phases of the objectification process as defined by Simons (1966): the "I", the "Thou" and the "I-Thou stages." He defines no specific time when individuals should move from the "I" in which they see others as objects, through the "Thou" in which their observation of concrete humanity causes them to realize their objective or real self, to the "I-Thou," in which they can relate to others honestly and intimately. However, children are ready to begin this process at the primary level. The sooner they begin it, the less difficult it will be for them, provided they are given a relatively safe place in which to reveal themselves. The teacher can facilitate this by not making the risk of failure so high that the child won't try. An atmosphere in which mistakes are expected and tolerated and above all one in which each individual is respected and accepted will facilitate objectification.

P7. *Acquiring Respect for Other People and the Work They Do* — This task is designed not only to help the child come to value work, but to prevent occupational foreclosure. As Kokaska, et al., (1970) point out, there is no way of knowing for which jobs an individual is best suited when he or she is in elementary school, so from a pragmatic standpoint it makes sense to foster positive attitudes towards all kinds of work. Further, if people in this society truly believe in the equality

of individuals, that every individual is worth the respect of every other, then this attitude must be extended to one's work as well. If, as it sometimes seems, the doctrine is "honored more in the breach than in the observance," society would do well to revive it. Again, the child must be taught as soon as possible that all work is valuable, especially since many parents teach in an Orwellian sense that "some jobs are more equal than others." It is pragmatism as well as idealism which requires stress on this point: society needs garbage collectors as well as presidents, but unless respect is fostered for these jobs, society will be faced with qualitative, if not quantitative, shortages in these positions.

RESPONDING STAGE — INTERMEDIATE (I)

In the period from fourth through sixth grades the child continues to face the same kinds of tasks, but tasks of greater complexity. By the end of this period, he or she will have completed Piaget's concrete operations stage. While perceptual learning still occurs, he now enters the phase of conceptual learning. Where at the primary level the child could distinguish between various occupations, primarily on the basis of tool and uniform cues, at this stage he or she develops the ability to conceive of the functions of the occupations (Gysbers, 1969). Children are concerned with what they can do. Erikson (1968, p. 125) states that "nothing less is at stake than the development and maintenance in children of a positive identification with those who know things and know how to do things."

11. *Developing a Positive Self Concept* — At this level children should begin to conceptualize what they formerly only perceived. Their self-awareness must expand into a self-concept. McNeil (1966) states that:

> ——Essentially, the notion of a self-concept is inextricably intertwined with the human capacity to think about the future as well as to recall the past and to blend the two into a reasonable view of the present (p. 69).

The importance of the self-concept for career development is stressed by Super, among others, who says "in expressing a vocational preference . . ., a person puts into occupational terminology his idea of the kind of person he is" (Super et al., 1963). For Super, the process of career development is essentially that of developing and implementing a self concept.

There is a good deal of theory and research to the effect that one's career is determined by the sort of person one is. The existentialists go a step further and state that the sort of person one is is also determined by one's career (Sartre, 1962). In any case, there is almost universal agreement that one needs a positive self-concept. That the school can

facilitate this development is supported by Pratzner (1969, p. 36) who concludes that "the maturity of an individual's self-concept tends to vary directly with active participation in group interaction and communication relevant to self."

I2. *Acquiring the Discipline of Work* — Erikson (1968) describes this task in this way:

> ——It is as if [the child] knows and his society knows that now that he is psychologically already a rudimentary parent, he must begin to be something of a worker and potential provider before becoming a biological parent. . . . He now learns to win recognition by producing things (p. 124).

Children have the interest and the ability to work. They need opportunities to do so and reinforcement for doing so. They have developed a sense of agency: they know they can master parts of their environment. At the next level, they will need a method for doing so. The discipline of work — persistence, organization, utilization of resources and so forth — gives them the method.

I3. *Identification with the Concept of Work as a Valued Institution* — Children move from identification with workers to identification with the concept of work as they develop the ability to conceptualize. Havighurst (1968) indicates that at about this time the concept of working becomes an essential part of the ego ideal. Once students have internalized this value, they proceed to personalize it; work becomes a valued institution for them; they will work. If this value is not internalized, it becomes very difficult for them to achieve self-direction. The probability that they will work only because and when others want them to remains high. This in turn has a deleterious effect on their ability to achieve the discipline of work or a positive self-concept.

I4. *Increasing Knowledge about Workers* — At this stage, students should expand their knowledge of workers beyond the home and neighborhood and beyond the limited, concrete knowledge of the primary level. Gysbers (1971, p. 8) indicates that "the emphasis of program activities at this level should be on having students actively encounter the work world with its accompanying terminology and concepts." The most effective way for them to encounter this world is through direct and expanded contact with workers.

I5. *Increasing Interpersonal Skills* — Havighurst (1968) and Miller and Form (1968) stress the importance of peer relationship. As with all the tasks at this level, an increasing amount of sophistication is required of the student. Where at the primary level this task involved fairly simple behaviors such as parallel play and sharing, now the student must work effectively in more complex types of group activities.

The skills at this age are primarily focused on same-sex peers, and remain fairly neuter in orientation even across sexes. After the onset of puberty the entire nature of relationships changes, but individuals' confidence in their ability to relate successfully, and thus to some extent, their actual ability, are in some degree dependent upon their earlier success or failure.

16. *Increasing Ability to Present Oneself Objectively* — The basic task remains the same as at the primary level, but the complexity and consequently the risk involved increases. As with the task above, the more competent the individual becomes during this stage, the more likely he or she will be to withstand the *sturm und drang* of adolescence with self-esteem intact.

17. *Valuing Human Dignity* — Through this task the individual abstracts the respect he or she gained for specific people and their work to an appreciation of all people everywhere. He/she generalizes and internalizes the significance of people and their work. The next step is to personalize it. As children work through this task, they should acquire an understanding of the interdependence of mankind. It is at this stage, according to Gysbers (1969), that values are formed, whether through incidental or intentional learning. Without a respect for and commitment to the worth of mankind the individual can work only for his or her own gain, which is not always most productive or satisfying. Further, unless children truly value all people, they cannot value themselves.

ASSERTIVE STAGE — JUNIOR HIGH (J)

During the years from seventh through ninth grade young people undergo great changes physically, intellectually and socially. They must come to accept themselves as entirely different persons outwardly, and, to some extent, inwardly. According to Erikson the major concern during this period is identity. The youngster enters Piaget's formal operations stage, in which "he develops the capacity to operate on hypothetical propositions" (Sylvester, 1969) — he has learned to think logically and abstractly. Gysbers (1969) states that the:

> ——individual is able to cope with cultural and environmental demands, make internal interpretations of environmental transactions, and then generalize these interpretations to other situations (p. 4).

Concepts which have been acquired previously are used to build further concepts. Daws (1970, p. 71) supports Erikson, saying "the dominating task of the adolescent years is achievement of a sense of personal identity."

J1. *Clarification of a Self Concept* — Super states that "self-concepts begin to form prior to adolescence, become clearer in adolescence

and are translated into occupational terms in adolescence" (Super, et al., 1963). Individuals are in Super's exploratory period of vocational development, and explore self-attributes and dimensions of the world of work in relation to each other. They must reinterpret the self-concepts developed earlier in terms of their "new" self.

J2. *Assumption of Responsibility for Vocational Planning* — At this level, usually for the first time, the students have a choice in selecting curricula. They combine their sense of agency with the discipline of work to assume responsibility, not just verbally, but in actual course selection. This task is highly interrelated with acquiring a sense of independence: if students allow others to choose their coursework, they remain dependent in at least this respect. Super's (1960) study of ninth grade boys indicates that acceptance of responsibility for planning is fairly typical for this age.

J3. *Formulation of Tentative Career Goals* — These are tentative choices and great care must be taken to avoid pressuring a student into locking into a particular occupation at this point. This task is designed partially to narrow the range of the students' occupational interests, but it is primarily aimed at making them familiar with the factors and processes involved in choosing occupations. These hypotheses should be consonant with their own values, needs and abilities as identified in the clarification of self-concept, yet students must remain open to unidentified and/or underdeveloped interests and abilities. Further, as Simons (1966) points out,

> ——The attack until now has been to examine the life process to attempt to explain the "why" of vocational choice. The existentialist is suggesting that one examine the career choice to explain the mystery of the life process (p. 164).

The individual should be aware that there is some evidence that the career forms the self in much the same way that the self determines the career.

J4. *Acquiring Knowledge of Educational and Vocational Resources* — Matheny (1969) defines one function of the middle school as helping students choose and locate appropriate curricula or jobs. The emergence of what Piaget calls formal operations allows the adolescent to think about his or her thoughts, to reason realistically about the future (Elkind, 1968). This task is designed to give students the information they need to make realistic and open ended choices. Vriend (1969) suggests

> ——the likelihood that most individuals can fill any one of an inestimable number of unrelated occupational roles and are only limited in doing so by the exigencies of time, place, socio-

economic circumstances and the effects of environmental conditioning including that which occurs in school (p. 384).

J6. *Awareness of the Decision-Making Process* — Since students will continually be making decisions, it is necessary to help them develop effective decision-making skills. Career development takes place within the framework of a changing society and rapidly changing occupations. Tiedman (1961, p. 15) states that "the compromise inherent in discovering and nourishing the area of congruence of person and society as expressed in an individual's behavior is effected within a set of decisions." Graff and McLean (1969, p. 573) suggest that "vocational decision-making is an on-going process of making choices, obtaining new information and experience, revising previous choices and making new choices." Because students usually have their first opportunity to make decisions which will directly affect their careers at the junior high level, it is essential that they become aware of the process involved.

J7. *Acquiring a Sense of Independence* — Hershenson (1968) suggests that at this stage the adolescent's psychic and physical energy is primarily directed towards establishing independence. Allport (1955, p. 444) speaks of a set of forces which "have their origin within the individual and emphasize self-expression through uniqueness and individuality." As the student's range of activities increases, his dependence on the home is weakened (Miller and Form, 1968). This task is directly tied in with the preceding one. Having learned what they can do, students must decide what they will do. They are learning to be independent of adult control and guidance (Hurlock, 1964). If they are successful in making their own decisions, their self-concept is strengthened and they are aided in establishing a separate identity.

ORGANIZING STAGE — SENIOR HIGH (S)

The tasks at this level demand that students expand and refine the tasks of earlier levels. At this time young people determine to a large extent the course of their future. They must define the level of their educational aspirations and arrange their training accordingly. Many students enter the world of work for the first time. Gysbers (1969) states that:

> ——at this level the concepts which students hold about self, the work world and career preparation become internalized to the point where they form the basis for more specific generalizations concerning their career life identity (p. 9).

Achievement of these developmental tasks gives the student the tools with which to build a career.

S1. *Reality Testing of a Self Concept* — At this point students need to check their perceptions of abilities, aptitudes and other personal resources against external reality so that they can effectively determine the career options available to them and act accordingly. As Herr (1969, p. 179) suggests, "One learns through experience and by socialization what kind of person he is, that of which he is capable, what he values."

S2. *Awareness of Preferred Life Styles* — The high school student is expected to make a great many decisions which will strongly affect his or her future. It is extremely important that the younger person consider all relevant factors including those relating to life style. In choosing an occupation, an individual chooses a way of life. Tyler (1964, p. 192) states that "individual differences as they show up in the world of work, are far more complex than early workers anticipated." Therefore, teachers must, as Hayes (1969) indicates,

> ——provide the individual with the means of assessing whether a work role and its associated nonwork roles are in harmony with the kinds of roles he would like to play and the way of life he aspires to, [and] facilitate the development of realistic expectations about his occupational role in terms which will enable him to test out its harmony with his self-concept (p. 17).

S3. *Reformulation of Tentative Career Goals* — This task is an extension of the *formulation of tentative career goals* task at the junior high level. The student needs to incorporate changing interests, abilities, and values with increased knowledge of occupations and his or her own needs to formulate realistic career hypotheses. Care must be taken to avoid narrowing the occupational range too severely. As the student nears entry into the work world, a realistic array of options is vital.

S4. *Increasing Knowledge of and Experience in Work Settings and Occupations* — The student at this level is capable of performing many kinds of work. Actual or simulated job experience will aid him or her in acquiring skills, responsibility and confidence in the role of worker, and aid in testing self-concept. Occupational information presented through the cluster concept approach, which is directed toward the preparation of individuals with skills, knowledges and attitudes required for job entry into a family or cluster of occupations, is particularly appropriate at this level (Frantz, 1971). This approach allows students to narrow their range of occupations to those which they can realistically explore, but keeping options open.

S5. *Acquiring Knowledge of Educational and Vocational Paths* — This task builds on the junior high level task *acquiring knowledge of educational and vocational resources*. In order to formulate realistic career hypotheses, the student must know what the educational and training requirements of tentatively considered choices are. In addition,

this knowledge will help him or her to test the reality of evolving self-concept. This information can open up previously unconsidered options in choice of careers.

S6. *Clarification of the Decision-Making Process as Related to Self*—With the onset of the senior high years, the adolescent is required to make more and more career decisions. Herr states that choice-making is often more psychological than logical; thus it is important that the student understand the nature of decision making. Building from the junior high level task, *awareness of the decision-making process*, the student must personalize the process. Hunt (1967, p. 51) suggests that "an individual tends to express his self-concept through his complex real-life decisions, such as in the case of vocational choice and decision." Achievement of this task helps create in individuals the ability to utilize their personal attributes to influence the nature of future choices rather than merely adapting to external pressures (Morrill and Forrest, 1970, p. 300). Learning to make decisions and accept responsibility for them means that the student comes closer to Allport's (1955, p. 444) definition of becoming one's self: "to develop responsible independence and individuality."

S7. *Commitment with Tentativeness within a Changing World* — This task may be the most difficult and most necessary of all. It is related to the preceding task in that most real life decisions involve more than matching two sets of static data. We have a changing environment and the real decision is how to plan for change (Thompson, 1964). At the same time Erikson's focal issues of intimacy, generativity and ego integrity may all be summed up as commitment. Morrill and Forrest (1970, p. 303) state that "both commitment and change are central for the individual who is to profit and grow personally from vocational experience and who is to be the key force in determining his future." Tiedeman (1967, p. 2) indicates that understanding of the predicament inherent in tentativeness and commitment "emerges only haphazardly during life, if at all." He states that:

> ——The probability of such emergence is increased if (1) cognitive capacity . . . is sufficiently developed to enable the person to reflect upon action, (2) understanding and appreciation of goal and choosing predicaments is a primary educational goal, and (3) there is expectation that understanding of the predicament of tentativeness and commitment in goal pursuit and choice election facilitates decision-making during all of adult life (p. 4).

This is the developmental framework out of which the performance objectives have been created and enabling objectives suggested. They are offered as a stimulus for teachers to create their own career development curriculum programs to meet local needs.

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APPENDIX B

POST HIGH SCHOOL CAREER MANAGEMENT TASKS*

Formulation to date includes task identification and conceptual definition of behavioral and content aspects of each task from theory and research. Further development (in process) involves deduction of specific instructional objectives and their manifestations and specification of representative learning experiences.

I. Developing interpersonal skills essential to work.

The task implies *increasing* ability to use generalized techniques for dealing with interaction in work setting. This involves being sensitive to cues in others' behavior, making inferences about another's frame of reference, and selecting appropriate methods for dealing with others.

Achievement of this task is determined by the degree to which an individual can identify skills appropriate to situations and use them in a manner which results in a satisfactory handling of the situation. Behavior at this level assumes that the individual carries out the mental processes involved and acts independently.

Experimental studies on persons who are interpersonally mature indicates they:

1. Are less defensive, less egotistical, less distrustful (Barron, 1954).
2. Feel respect for and show respect to others as humans: are tolerant of diversity; judge people and situations more accurately; tolerate uncertainty. . . . (Maslow, 1954; Harvey, Hunt and Schroder, 1961; Schroder, Driver and Struefert, 1967).
3. Are capable of intimacy and compassion in social relationships (Allport, 1961).
4. Work harmoniously with others in either a leader or follower role; have deep sensitivity to the feelings and attitudes of others (Combs, 1962).
5. Look for more diverse and pertinent information about others in group setting (Driver, 1962; Lee, 1968; Stager, 1966).
6. Produce more ideas about a problem situation and arrive at more adaptive decisions in group settings (Streufert and Schroder, 1965).

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*Sharon Strom has formulated this conceptualization for the CDC program.

7. Are more adaptive under stress in group settings (Schroder et al., 1967).

8. Are better able to put themselves in another's shoes and understand the impact of their own behavior on others (Crouse, Karlins, and Schroder, 1968).

9. Put less emphasis on power and status in interpersonal relationships (Adorno, Frenkel-Brunswick et al., 1950).

10. Are more likely to interpret criticism in terms of potential information and self-correction; are open to feedback from others and react rationally (Harvey et al., 1961).

11. Tend to develop democratic groups (Haythorne, 1953; Tuckman, 1964; Stager, 1966).

Disagreement and conflicting interests occur in cooperative and competitive work situations. Effective resolution involves maximizing functional consequences such as maintenance of individual integrity, accomplishment of individual and organization goals. Some evidence (Deutsch, 1949, 1962, 1969) indicates that when relationships within the organization are viewed as cooperative,

1. Communication is likely to be fairly open and nondefensive

2. Members see themselves as sharing common interests

3. Trust and responsive behavior are more likely to develop and

4. Members are more likely to seek mutually beneficial resolutions when conflict occurs.

However, when relationships are defined as competitive, conflict tends to increase because

1. Communication is often distorted or discontinued

2. Members are more likely to evaluate others behavior from their own perspective only and

3. They perceive opposing positions as illegitimate.

Some communication skills thought to facilitate interaction are as follows (Wallen, 1969):

1. Using one's own words to restate what another person says.

2. Describing someone's actions without questioning motives and without placing psychological meaning on actions or drawing conclusions about them.

3. Describing one's own feelings.

4. Tentatively describing what one observes about another's feelings.

5. Informing another about the effect of this behavior and accepting information about the effect of one's own behavior on another.

Role reversal is a procedure thought to eliminate misunderstandings, distorted perception, defensiveness and either-or thinking, thereby reducing conflict. Through discussion, persons "take the role of the other." Agreement is not necessarily reached when real differences exist, however (Johnson, 1967).

II. Developing information processing skills about self and the world of work.

This task implies *increasing* ability to search for information and use it effectively in solving problems and dealing with the environment. Accomplishment of this task is determined by the adaptability and flexibility of an individual's problem solving or decision-making behavior. Important indicators include 1) *information search* or the amount and type of information and the pattern of search and 2) *utilization of information* or how well the individual organizes and uses information to handle problems (Schroder et al., 1967; Schroder, Karlins and Phares, 1973). As Tiedeman and O'Hara (1963) have suggested, this requires a process of conceptualizing about the self and the world of work. Viewed developmentally, this process involves successive differentiation and integration. The individual becomes increasingly more adequate in distinguishing properties of a new situation as they relate to self and work and arranging these parts of experience together in relationship to previous learnings.

Research (Schroder et al., 1967; Karlins, 1968) indicates that individuals with well-developed information processing skills have a greater number of perceptual categories for receiving information about the world and more rules for combining and organizing units of information. Such persons act independently to attack problems; refuse to accept answers on the basis of faith or authority, raise questions and take nothing for granted to come nearer the truth; and rely increasingly on systematic and deliberate methods for solving problems (including planning and decision-making).

Individuals with low information-processing ability have fewer degrees of freedom for dealing with the environment — they use simple and fixed rules in designing courses of action. They are not able to generate a diversity of information about a particular subject, and cannot effectively organize information in different ways for decision-making purposes. Such persons are often intolerant of ambiguity, dogmatic,

rigid, and closed-minded. They are dependent upon external authority and externally defined rules; and often are inflexible in their attitudes and categorical in their thinking (things are good or bad; right or wrong).

Environments thought to facilitate student development of information processing skills encourage individuals to (Schroder et al., 1973):

1. Actively explore their worlds.
2. Develop strategies to elicit relevant information.
3. Seek out new and pertinent information for solving problems.
4. Organize information from several perspectives.
5. Relate, organize and use different perspectives in thinking and decision-making.
6. Hold conclusions tentatively and be willing to change views and behavior in light of new evidence.
7. Remain open to new information even though it may be stressful.
8. Consider conflicting points of view in arriving at decisions.
9. Be aware of changes in the environment.
10. Be adaptive—capable of changing behavior rapidly to fit requirements of a rapidly changing environment.
11. Make complex value judgments.

Individuals in this kind of environment are expected to seek out information in their environment, to put it together in new and meaningful ways in problem-solving, and if not successful in coping with the situation to be able to modify their concepts and try again. The individual is primarily responsible for planning and trying out his or her own course of action: concepts and decisions are self-made not products of the career educator.

Planful career decision-making is thought to involve a strategy for translating information into personal goals, plans, and actions (Hamilton and Jones, 1971). The following steps have been identified:

1. Defining problems.
2. Generating alternatives.
3. Seeking relevant information.
4. Processing information.
   a. Organizing and judging factual information.
   b. Examining consequences of alternatives in terms of personal values and interests.

5. Planning and selecting goals.

6. Using and evaluating plans.

Critical testing of alternatives regarding career would require knowledge about self, knowledge about educational and work alternatives, and problem-solving skills.

III. Reintegration of the self.

This task implies a process of conceptualizing about the self. It involves 1) perception of the self and world and 2) interpretation and organization of experiences into abstractions which can be used in the future. This occurs through the processes of differentiation and integration. Differentiation involves isolating and distinguishing properties of a new situation as they relate to the self. Integration involves hooking parts of experience together and relating them to concepts of self previously learned.

Degree of accomplishment of the task can be partly determined by the following indicators:

1. Use of comparative evaluation.

2. Realistic, accurate perception and generalization about the self ("self-objectification" in Allport's terms, 1937).

3. Assumption of a critical attitude toward one's efforts.

4. Recognition of the importance of continued self-evaluation.

An integrated concept of self refers to conceptualization of the self as a creative personality — a person growing toward maturity or in a process of "becoming." Some theories postulate that under appropriate conditions a person grows toward self-realization or full-functioning (Combs, 1961; Brown, 1972; Maslow, 1964; Rogers, 1961 and 1962). Such persons are characterized by 1) a feeling of personal worth; 2) a feeling of capability to cope with life problems; 3) the ability to perceive self and world with a minimum of distortion and defensiveness (objectivity to arrive at accurate, realistic evaluations); 4) an acceptance of human frailties and potential; 5) the courage to fail; 6) a problem-centeredness; and 7) a continual reassessment of capabilities and limitations in light of new knowledge.

Viewed developmentally (Harvey et al., 1961), a person progresses from a state of 1) undifferentiation to the rest of the environment through 2) a highly egocentric state of negative self-assertion to 3) beginning to take another's point of view in symbolic role-taking to 4) greater independence and relativism characterized by increased self-sufficiency and adequacy in coping with a complex, changing world. In more detail, after the individual develops a physical and continuing

sense of being, the first realization of self-hood originates in the ability to discriminate between signals of expectation in parental responses to his or her actions—the parents support, encourage, stimulate, guide, control and curb. . . . With the acquisition of verbal behavior the range of the ability to evaluate one's own behavior is extended and a rudimentary self-image results. Other's praise, criticism, and evaluation become internalized and one sees the self in others' eyes. The individual begins to "play" at taking the point of view of another. This aids the socialization of thought (Deutsch and Krauss, 1965). With increasing interpersonal skill, the self-concept is elaborated. Resulting self-evaluation influences and is reflected in behavior and in attitudes and beliefs. Self-development occurs in spurts and changes over time in various situations. The choice of an occupation is seen as a means to implement the self in early adulthood (Super, 1957). This involves taking the self seriously enough to make choices on the basis of self-knowledge. The self picture is thought to be anchored in the particular type of proficiency the individual considers noteworthy (Kroll, 1970).

IV. Acquiring a sense of community.

This task implies increasing commitment to a cluster of values and principles for use in choice situations involving more than one person. Commitment involves a strong belief in the value of a phenomenon. Committed persons are motivated to promote, further, or assist accomplishment of the valued phenomenon. Their behavior is reasonably consistent and stable over time (Krathwohl et al., 1964).

In this case, the person prizes the rights of others; feels concern for human welfare; values mutual respect and trust, human dignity, and reciprocity (mutual dependence, cooperation, etc.) in relationships with others.

To determine accomplishment of the task one would need to check the degree of conviction. Some behaviors thought to indicate conviction are:

1. Acting in a way which reflects involvement and concern about the value complex.
2. Trying to convince others about the merits of this stance.
3. Talking about, arguing for, or defending the stance.
4. Standing up for one's convictions.
5. Handling conflict constructively.
6. Cooperating with others, treating others fairly, avoiding words or actions which degrade others. . . .

Research (Allport, 1961; Combs, 1962; Harvey et al., 1961; Maslow, 1954; Rogers, 1961 and 1962), on sound personalities indicates that:

1. Such individuals accept responsibility for the consequences of their own behaviors (not try to project blame on others). Taking responsibility for one's behavior is seen as a means to promoting self and others' welfare.
2. They work effectively and with persistence at objective tasks. They can focus on problems outside of themselves.
3. They do not confuse means and ends and hold firmly to pursuing ends which they feel are right.
4. They are able to restrain the self to attend to others when appropriate.

During late adolescence and early adulthood there appears to be a stage of questioning of conventional modes of thinking, valuing, and acting — youth question fixed rules and authority. This period has been described as a moratorium (Erickson, 1964; Podd, 1969; Kohlberg, 1973). It is a period of newly found freedom to make one's own decisions. The individual begins to seek principles for later commitments. Later development of an ethical sense depends upon experiencing sustained responsibility for the welfare of others and irreversible moral choice (Kohlberg, 1973). White (1952) spoke of this as the humanizing of values — increasing awareness that values are not absolute and increasing ownership of one's own values. From a somewhat different set of assumptions, Peck and Havighurst (1960) describe the character type of adolescence and adulthood as Rational-Altruistic:

> ——having the tendency to act with consideration of others and their ultimate welfare. This is carried out both in terms of the possible effects over a time-span and on any other people who might be concerned and in terms of a rationally held body of principles as to what constitutes the greatest good for the greatest number. These principles . . . have been modified and differentiated by conscious, rational assessment of their human significance (pp. 3, 234).

V. Commitment to a concept career.

Commitment involves a strong belief in the value of a phenomenon. A committed person is motivated to promote, further, or assist accomplishment of the valued phenomenon. His behavior is reasonably consistent and stable over time (Krathwohl et al., 1964). This involves cognitive comprehension of the purposefulness and sequential, time-extended nature of a cluster of work-related behaviors called career. In addition, the individual accepts its influence on his or her future behavior. According to Kroll (1970, p. 18), "Although all behavior events involving work are purposeful, we cannot speak of purposeful career development until one has mastered the construct 'career'." In this case, it becomes increasingly apparent that the individual's attitudes and actions

take on some order and consistency in pursuit of particular ends. He or she demonstrates willingness to engage in something — purposeful activity.

To determine degree of accomplishment of the task, three aspects need to be checked:

1. *Attitude toward life.* This includes having something to do, feeling as if one has some control over what happens to him, willingness to risk failure, willingness to assume responsibility, willingness to control one's behavior to accomplish purposes, and openness to change.

2. *The pattern of action.* One would expect development of patterns of self-direction (i.e., using information about the self and work world to initiate behavior toward attainment of personal goals).

3. *Use of several mental processes.* Included are:

   a. A process of conceptualization involving analysis and synthesis.

   b. Rational planning involving self-evaluation, determination of goals, and selection among alternative means for exploration. . . .

Ryland Crary (1969, p. 347) suggests that there are two errors in many definitions of work — "to be busy and still not to play is not necessarily to work; to be employed for pay, either low or high, is not necessarily to work." Definitions of career and work employed here are taken from the AVA-NVGA Position Paper on Career Development (1973):

> ——the term, career, means a time extended working out of a purposeful life pattern through work undertaken by the individual. Such a definition is related to the meaning of work. Work is defined as an expenditure of effort designed to effect some change, however slight, in some province of civilization. It is not simply an arbitrary or gratuitous action, but something which, from some viewpoint within society ought to be done. The concept carries the intention that human effort will lead to an improvement of the individual's own condition or that of some element in society. Viewed in this way, work is not directly attached to paid employment; it may include efforts of an educational or a vocational nature (pp. 7 and 8).

VI. Acquiring the determination to participate in change.

Increasing complexity and constantly accelerating change are probably the most striking features of our world. People need to be able

to deal with complexity and uncertainty. In other words, people need to be taught how to be free — to be creative and adaptable.

The task implies increasing alertness to the gap between what is and what should be, dissatisfaction with things as they are, and a desire to change and alter conditions for the betterment of all concerned. This is a frame-of-mind which involves questioning conventional wisdom and time-honored ideas coupled with the ability to find, use and adapt existing knowledge (Lindner, 1952). Such cognitive processes as assimilation and accommodation (Flavell, 1963) and the psycho-social processes of commitment and ego strength (Erickson, 1962 and 1964) appear to be crucial.

To check for degree of accomplishment of this task, one would observe how the individual spends his time and energy:

1. Is there evidence of rational, personal goal determination and continual reassessment with changing conditions?
2. Are the means selected appropriate to the accomplishment of goals?
3. Are these patterns of action, followed, once chosen?
4. Is the individual able to remain devoted to something in the face of diversity?
5. Can the individual change his behavior to fit the requirements of changing circumstances?
6. Is reasoned skepticism apparent?
7. Is there willingness to remain open to change?

There is internal consistency to the system of attitudes and values at any particular moment. The individual is convinced that reasoned change is necessary and gives personal witness to the need for change. He is predisposed toward actively restructuring the environment to accomplish what is deemed desirable and right. Such an individual is able to:

1. Focus on goals.
2. Take stock of the existing system.
3. Invent or adapt ways to bring about change when there is a discrepancy between valued ends and the existing system.
4. Check on the success of the means by examining the product it produces.

VII. Creative application of management skills to life roles.

This task implies *increasing* ability to synthesize, i.e., drawing elements from many sources and putting these elements together in such

a way to form a new pattern (Bloom, 1956). Within the limits of problems accompanying planning a personal life-style, it clearly involves creative behavior.

There are as many ways of meeting life as there are men and women. These ways are always changing as philosophies change and broaden from new knowledge and experience. A philosophy is a point-of-view or outlook upon life which guides the behavior of the individual. Each individual has some philosophy of life although he or she may not think of it as such. Some persons develop their philosophy out of experience in dealing with problems of life; others willingly accept a ready-made philosophy imposed by tradition and custom. Still others drift along the line of least resistance or accept a point-of-view through the force of circumstances.

Personal philosophy is determined largely by one's predisposition, total experience, educational background, habits, physical and social heritage. For most, a philosophy is a gradual, unconscious development. A philosophy is important because it gives meaning to life, thoughts, feelings and experiences. It helps one learn how to live and see life as a whole. It conditions the quality of human relationships, the choice of surroundings, one's interests and the selection of a career.

In meeting life problems, men and women are constantly faced with situations requiring decision and action. Small, routine or repetitive decisions related to daily activities make up a large share of decision-making. Many of these judgments are automatic because criteria are well-established and action can result almost immediately. Other important decisions calling for action and deliberation require more time and thought. Some research indicates that persons who consistently make rational judgments have a thorough knowledge of the situation, the ability to grasp relationships clearly and to sense important values involved, and the willingness to follow through with the decision which seems best.

According to Dewey and Tufts (1938), the process of making decisions proceeds along definite lines. They suggest that in approaching life problems, one unconsciously and spontaneously makes certain mental selections; one thing is liked and another disliked, one thing is chosen and another rejected. Preferences of this kind always precede judgment of comparative values. Values derived from each choice are weighed and compared. Finally, in the process of deliberating, a choice based on conscious values emerges.

Management in general terms may be said to be planned activity directed toward accomplishing desired ends. It involves the weighing of values and the making of decisions. The process consists of three more or less consecutive and interdependent steps: planning or mapping out

courses of action to reach immediate and long term goals, controlling the various elements of the plan while carrying it through, and evaluating results preparatory to future planning. The purpose of management is to achieve goals and in so doing it brings about change.

Some qualities thought to affect one's success in management are as follows:

1. Imagination — being able to recall facts and ideas and to rearrange these in new relationships or patterns.
2. Judgment — being able to weigh the facts of a situation and see a problem in relation to other problems faced, i.e., weighing critically, evaluating, analyzing, and interpreting experiences to oneself.
3. Adaptability — being able to shift plans in light of changing conditions and new information.
4. Self-management — being aware of one's own feelings, interests, values and using this knowledge to set goals.

Some behavioral indications of accomplishment of the three steps involved in creative management are as follows:

1. Sees the need for and makes timely decisions.
2. Keen awareness of situation and self and/or group problems.
3. Considers own life style needs and priorities.
4. Acceptance of the inevitability of disagreement and conflicting interests.
5. Conceptualization of results to be accomplished.
6. Rapid application of knowledge in meeting living situations and solving problems of multiple roles.
7. Thorough information search of available sources to figure out ways to solve problems.
8. Makes well-conceived life plans.
9. Realizes own limitation of resources.
10. Devises alternative uses of personal resources.
11. Controls the means planned for while carrying out the plan.
12. Uses plans to accomplish results desired.
13. Adjusts plan in order to move forward.
14. Understands that plans are means to one's ends.

15. Analyzes behavior or work done and judges results in an objective manner.
16. Sees the value of analyzing past experiences.
17. Makes honest, realistic self-appraisals.
18. Shows willingness to change method and/or behavior after evaluation.
19. Transfers learning from one experience to another.

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APPENDIX C

Instructional Objectives, Grades K-12

THE CAREER DEVELOPMENT PROGRAM
SPECIFICATION OF BEHAVIORS WHICH CHARACTERIZE
EACH CAREER MANAGEMENT TASK

Level 1 — Primary Grades K-3

MT#1 *Awareness of Self*

PO#1 Describes how one perceives self as different from those around him/her.
- EO#1 Identifies characteristics which describe one's physical appearance.
- EO#2 Identifies characteristics which describe one mentally and emotionally.

PO#2 Describes how health may affect work performance or be affected by it.
- EO#1 Identifies ways in which poor physical or mental health may affect one's work performance now and in the future.
- EO#2 Lists ways in which an occupation can affect one's physical and mental health, positively and negatively.
- EO#3 Identifies physical and mental abilities required by different occupations.

PO#3 Demonstrates success in coping with new social and work roles.
- EO#1 Identifies social and work roles which are new for him/her.
- EO#2 Describes how one is fulfilling a new work role.
- EO#3 Demonstrates adequate performance in a new social role.

MT#2 *Acquiring a Sense of Control over One's Life*

PO#1 Defines work and demonstrates that he is a responsible worker.
- EO#1 Constructs an oral or pictorial definition of work.
- EO#2 Lists work tasks he/she fulfills regularly and identifies reasons why he fulfills them.

Code: MT = Management Task
PO = Performance Objective
EO = Enabling Objective

EO#3 Describes how his/her role as a student is like that of an adult worker.

PO#2 Describes how work can be a principal instrument for coping with and changing his own environment.

EO#1 Identifies ways in which work he does at home affects his physical, social and emotional environment.

EO#2 Describes how work he does in school can affect him socially and economically, now and in the future.

EO#3 Identifies things he can do to make his environment more as he would like it to be.

PO#3 Identifies manipulative abilities that have relevance for work.

EO#1 Demonstrates manipulative abilities in a variety of tasks.

EO#2 Lists abilities he is in the process of acquiring.

EO#3 Names occupations in which he could use his manipulative abilities.

EO#4 Identifies ways in which the child is like workers he/she knows.

EO#5 Identifies men and women who have entered and been successful in nontraditional occupations.

PO#4 Describes his own behavior in a work situation in terms of why he does or does not do more than the minimum required.

EO#1 Identifies the requirements of a given work situation.

EO#2 Lists reasons for and against doing more than the minimum in work situations.

EO#3 Identifies reasons why he behaves as he does in any given work situation.

MT#3 *Identification with Workers*

PO#1 Identifies ways in which he is like workers he knows.

EO#1 Lists tasks he performs which are similar to those performed by workers he knows.

EO#2 Names at least one characteristic which he shares with a worker.

PO#2 Describes self and the kind of person he wishes to become in light of his observations of worker models.

EO#1 Lists characteristics of a worker model that he would like to acquire.

EO#2 Identifies worker characteristics which he would like to acquire and describes how he might acquire them.

PO#3 Demonstrates an awareness that the effectiveness of workers he knows is closely related to the personal impression they make.

EO#1 Identifies those students in the class who are effective workers and describes the general impression they make.

EO#2 Identifies workers in the neighborhood who make either positive or negative impressions and describes their work effectiveness.

MT#4 *Acquiring Knowledge about Workers*

PO#1 Describes the work of significant persons in his life.

EO#1 Names the occupations held by his parents, close relatives, neighbors, and others who are important to him.

EO#2 Identifies tasks which make up the occupation of several significant others.

PO#2 Observes and talks to various workers in the school and neighborhood to gain occupational awareness.

EO#1 Lists the occupations represented in the school and identifies tasks performed in each.

EO#2 Observes workers in the neighborhood and describes the tasks they perform.

PO#3 Increases the range of workers about whom one has knowledge.

EO#1 Identifies workers who provide services to his home and describes their functions.

EO#2 Names occupations whose function he doesn't know and interviews workers in those fields.

EO#3 Identifies occupations which have been created in the last ten years.

PO#4 Asks significant others what skills they need in their jobs.

EO#1 Lists skills which correspond with the occupations of significant others.

MT#5 *Acquiring Interpersonal Skills*

PO#1 Performs in a given work situation in a manner which indicates he understands that work effectiveness depends not just on proficiency but on quality of interpersonal relations as well.

EO#1 Demonstrates in a group task that completion of the task depends on cooperation as well as individual proficiency.

EO#2 Describes the effect of pleasant or unpleasant relationships on his ability to work effectively.

PO#2 Contributes positively to group effort in a work situation by demonstrating ability to both compromise and exercise influence in the achievement of group goals.

EO#1 Lists group goals in a given situation and identifies reasons why he may have to compromise to reach those goals.

EO#2 Describes how his influence might help to achieve group goals.

EO#3 Identifies advantages and disadvantages of compromise and influence in a given situation.

PO#3 Describes how participation in individual and group activities will aid his development or enhance a work-related skill.

EO#1 Describes how working with others can help him develop a work-related skill.

EO#2 Identifies similarities in his relations with other students and an adult worker's relations with co-workers.

MT#6 *Ability to Present Oneself Objectively*

PO#1 Demonstrates ability to use constructively success or failure in a work situation.

EO#1 Identifies factors which contribute to success or failure in a work situation.

EO#2 Describes his performance in a given situation as successful or unsuccessful and asks for constructive criticism.

EO#3 Describes knowledge gained in failure to complete a task which might not otherwise be gained.

PO#2 Demonstrates the ability to depend upon others and to be depended upon in the work environment.

EO#1 Identifies ways in which he is dependent upon the work of others.

EO#2 Identifies ways in which others depend on work he does.

EO#3 Describes the advantages and disadvantages of depending on others and being depended upon.

PO#3 Shows a genuine concern for co-workers and expresses a shared responsibility for success or failure of the work group.

EO#1 Describes how the performance of any member of a work group can affect the group's performance.

EO#2 Identifies the effects of his actions on other workers and describes his responsibilities to them because of these effects.

EO#3 Describes how the activities of members in different families can affect the family unit.

MT#7 *Acquiring Respect for Other People and the Work They Do*

PO#1 Describes the contribution of many different workers to society.

EO#1 Lists the contribution of workers at various socioeconomic levels and identifies reasons why each is important.

EO#2 Describes the interdependence of the people in the school and neighborhood: how each of them needs the others.

PO#2 Describes how the work of women is as important as the work of men.

EO#1 Identifies the contribution women make to life.

EO#2 Describes the changing role of women in the world of work.

EO#3 Describes how the contribution of individuals both inside and outside the home is important.

Level 2 — Intermediate, Grades 4-6

MT#1 *Developing a Positive Self Concept*

PO#1 Describes how he and others perceive his strengths.

EO#1 Identifies positive characteristics which describe him.

EO#2 Describes positive characteristics which others see in him.

EO#3 Identifies the characteristics he and others agree he possesses and those on which they do not agree and lists possible reasons for their disagreement.

PO#2 Describes how one perceives himself in terms of interests, abilities, values and goals.

EO#1 Classifies a list of terms as interests, abilities, values and goals.

EO#2 Selects from a list his own interests, abilities, values and goals.

EO#3 Describes ways in which one sees self as similar to or different from workers in occupations which traditionally have been stereotyped by sex.

EO#4 Identifies own values as they relate to work situations.

EO#5 Identifies values of workers in occupations which traditionally have been stereotyped by sex.

PO#3 Identifies one's own values as they relate to work situations.

EO#1 States how, if at all, his behavior would differ from that of a worker model in a value conflict situation.

EO#2 Identifies values he holds and lists occupations through which these values are promoted.

EO#3 Identifies occupations in which it would be difficult to maintain the values one now holds.

PO#4 Describes work as valuable in terms of its intrinsic satisfactions.

EO#1 Identifies satisfactions in his work as a student.

EO#2 Lists abilities which he enjoys using and identifies occupations in which he could use those abilities.

EO#3 Identifies satisfactions relating to interests and values which he can gain through work.

PO#5 Describes ways in which one can express self through work.

EO#1 Identifies personal characteristics which one values and describes his use of those characteristics in school.

EO#2 Lists occupations through which he could express his interests, values and abilities.

MT#2 *Acquiring the Discipline of Work*

PO#1 Demonstrates effective work habits by utilizing communication skills when giving or evaluating instructions.

EO#1 Instructs another student or group of students in the performance of a simple task.

EO#2 Follows instructions to perform a simple task.

EO#3 Asks questions which make completion of a task possible.

PO#2 Identifies those factors taken into consideration by an employer when choosing from an abundance of job applicants.

EO#1 Identifies characteristics which an employer would consider at a job interview.

EO#2 Identifies qualifications an employer would consider important.

PO#3 Budgets his time effectively by managing his leisure, work and home time in ways that enable him to achieve individual goals.

EO#1 Identifies an individual goal and constructs a schedule of leisure, work and home time which will enable him to meet that goal.

EO#2 Identifies individual goals which may conflict in terms of the time they consume and describes alternative schedules which allow him various ways of resolving the conflict.

PO#4 Demonstrates a personal involvement in the work task and situation, responding positively to problems.

EO#1 Selects a work task, identifies the problems involved in it, and describes means of coping with the problems.

EO#2 In a given task selects a positive means of solving a problem.

PO#5 Demonstrates ability to organize self and situation in order to accomplish a variety of tasks.

EO#1 Sets priorities for tasks to be done and allocates time.

EO#2 Assesses energy and time required to complete a series of tasks within a given period and checks it out.

MT#3 *Identification with the Concept of Work as a Valued Institution*

PO#1 Explains how the things learned in work make leisure time more enjoyable.

EO#1 Describes how work and leisure time pursuits are related.

EO#2 Identifies skills one uses in school which make leisure time enjoyable.

EO#3 Lists work attitudes and interests which extend appropriately to leisure time.

PO#2 Identifies and explores two or more broad occupational areas which may offer satisfying work activity.

EO#1 Describes the satisfactions significant others gain from their occupation.

EO#2 Identifies the contribution of occupational areas to society.

PO#3 Describes how his interests relate to broad occupational areas.

EO#1 Identifies work oriented interests in the home, school and community.

EO#2 Identifies occupational areas which relate to home, school and community work-oriented interests.

PO#4 Identifies the value he places on personal endeavor and achievement as compared to societal values.

EO#1 Identifies personal values placed on work and achievement.

EO#2 Identifies home and societal values placed on work and achievement.

EO#3 Describes the differences between the real and ideal in our work value system.

EO#4 Identifies how and why personal values change as a result of societal values.

EO#5 Identifies men and women with different work values.

MT#4 *Increasing Knowledge about Workers*

PO#1 Identifies and utilizes nontechnical resources available for gathering information about occupations.

EO#1 Describes human resources available to him in the school and community.

EO#2 Constructs a sample interview questionnaire for gaining occupational information.

EO#3 Lists resources available to him in the library, classroom and home.

PO#2 Studies workers in various occupations to learn their satisfactions and dissatisfactions.

EO#1 Interviews workers in various occupations to learn their satisfactions and dissatisfactions.

EO#2 Interviews workers in the same occupations and describes similarities and differences in their satisfactions, interests, attitudes and skills.

EO#3 Identifies men and women in new or unusual occupations which one would like to learn more about.

PO#3 Identifies the sources of power and authority in work situations and describes their effect on the worker.

EO#1 Identifies a source of power and authority in the classroom and describes its effect on him.

EO#2 Identifies several sources of power and authority in a work task.

EO#3 Describes a situation in which he is a source of power and authority and describes his effect on others.

PO#4 Identifies the reasons why many women will need the stimulation and rewards of a work role in addition to a family role.

EO#1 Identifies life patterns of men and women which are different from the traditional societal one.

EO#2 Identifies family patterns in which men and women have equal roles in work and in home management.

EO#3 Describes the changing roles of women in the labor force.

EO#4 Lists the advantages and disadvantages of mothers working outside the home.

EO#5 Examines satisfactions of women who are not working outside the home.

EO#6 Examines satisfactions of women who are working outside the home.

MT#5 *Increasing Interpersonal Skills*

PO#1 Identifies personal characteristics in his relations with other people as they are relevant to work (e.g., persuading, cooperating, etc.).

EO#1 Describes his mental, physical and emotional characteristics which are apparent in work situations.

EO#2 Identifies characteristics in his relations with others which seem to facilitate working with them.

EO#3 Lists characteristics which seem to hinder his interpersonal relations and describes how he might change them.

PO#2 Describes how a person's welfare is dependent upon the well being of all people in society.

EO#1 Identifies factors in personal well being.

EO#2 Identifies factors of societal well being, including wages earned in work.

EO#3 Describes the effect of local and national economy on individual well being.

PO#3 Identifies social, political and service organizations available to him and describes how he can contribute to the community and school through them.

EO#1 Lists the local service clubs and describes their contribution to the community.

EO#2 Identifies the political organizations in the community and describes how their policies and actions affect occupations.

EO#3 Describes the pressures to join organizations because of work affiliations.

EO#4 Identifies clubs, organizations and activities within the present and future school setting that might provide work-related experiences.

PO#4 Displays an awareness of the dynamics of group behavior by successfully functioning as a contributing member of a task oriented group.

EO#1 Identifies ways in which his individual experiences will benefit the work group.

EO#2 Demonstrates in group interaction the ability to facilitate task performance through teamwork.

MT#6 *Increasing Ability to Present Oneself Objectively*

PO#1 Copes with authority exercised by others in the work environment in ways which lead to effective achievement of the task.

EO#1 Locates and identifies authority in his environment.

EO#2 Describes how an authority can facilitate completion of his own task.

EO#3 Lists ways in which he can complete his tasks with the help of or in spite of authority exercised by others.

PO#2 Elicits and considers suggestions and evaluations regarding a given work performance.

EO#1 Selects and performs a task, asking the teacher for suggestions.

EO#2 Describes his performance of a work task to his peers; identifies and utilizes constructive suggestions.

PO#3 Describes his obligation as an interdependent person in a work oriented community.

EO#1 Selects an occupation and describes what would happen to society if that occupation's functions were not performed.

EO#2 Describes how he and his family are interdependent.

EO#3 Identifies situations in which his failure to perform makes it impossible for others to fulfill their tasks.

MT#7 *Valuing Human Dignity*

PO#1 Describes how he can contribute to society now.

EO#1 Identifies a variety of ways in which individuals can contribute to the community.

EO#2 Identifies social and economic needs of his own community.

EO#3 Lists ways in which he can contribute towards fulfilling the needs of the community.

PO#2 Describes the social worth of work by identifying the contribution of a wide range of various occupations to the well being of society.

EO#1 Lists workers who directly affect his life every day.

EO#2 Identifies reasons why some occupations disappear while others are created.

EO#3 Constructs a definition of the concept "dignity in all work".

PO#3 Describes how work in America can help to overcome the social problems which confront mankind today.

EO#1 Identifies social problems that are present in society today.

EO#2 Describes how work has helped to overcome social problems in the past.

EO#3 Identifies occupations which aggravate and which help resolve social problems.

EO#4 Describes what he does or can do through his occupation as a student to aggravate or alleviate social problems.

EO#5 Identifies occupations in which women and men may help solve a major social problem.

EO#6 Identifies community needs which might be met through creation of new jobs.

Level 3 — Junior High, Grades 7-9

MT#1 *Clarification of a Self Concept*

PO#1 Describes the relevance of his aptitudes and abilities for broad occupational areas.

EO#1 Identifies his abilities and lists occupations in which they could be utilized.

EO#2 Selects broad occupational areas and identifies abilities required in each area.

EO#3 Describes how several of his abilities could be utilized in an occupation.

EO#4 Describes how he could develop his aptitudes for use in several occupations.

PO#2 Describes own values as they relate to occupations, work situations and personal work behavior.

EO#1 Lists values which are congruent and incongruent with one's preferred occupations.

EO#2 Describes how one's social roles are influenced by the work one does and how well one does it.

EO#3 Identifies one's personal values by participating in activities which make one aware of self.

EO#4 Identifies compromises a man or woman may have to make in choosing to pursue an occupation.

EO#5 Identifies ways in which one performs work roles at home that satisfy needs of the family.

PO#3 Demonstrates sensitivity to the needs of co-workers and

supervisors and describes how he is a significant person in the satisfaction of these needs.

EO#1 Describes ways in which his behavior at school and at home affects his immediate family.

EO#2 Identifies requirements of students and teachers in several situations and describes how he meets those requirements.

EO#3 Identifies ways in which his behavior in a preferred occupation could help his co-workers and supervisors, and ways in which it could hinder them.

PO#4 Predicts and gives supporting evidence for the likelihood of one's achieving one's occupational goals.

EO#1 Describes physical, mental, social and financial requirements for reaching his occupational goals.

EO#2 Identifies self-characteristics which may help or hinder achievement of his occupational goals.

EO#3 Identifies societal barriers which may hinder achievement of one's occupational goals.

EO#4 Identifies ways in which different work and family patterns may require different kinds and amounts of energy, participation, motivation, and talent.

MT#2 *Assumption of Responsibility for Vocational Planning*

PO#1 Describes how the management of personal resources (talents, time, money) affects one's way of life and achievement of life goals.

EO#1 Identifies his actual and potential personal resources.

EO#2 Describes his present life goals and relates his personal resources to these goals.

EO#3 Identifies several different ways of managing his personal resources which may lead to achievement of his life goals.

EO#4 Relates personal abilities, energies, goals, motivations, tastes, and circumstances to a variety of life patterns.

PO#2 Demonstrates a commitment to the idea that one should have a plan for one's educational-vocational life.

EO#1 Identifies various sources of educational-voca-

tional information and describes their relevance for his life.

EO#2 Formulates a tentative plan for his educational-vocational life based upon sound information and selective use of resources.

EO#3 Describes implications of a tentative plan for other aspects of life (marriage, family, leisure, community, etc.).

PO#3 Plans current school experience so that it fits into the pursuit of one's occupational goals.

EO#1 Identifies academic courses whose completion may aid in the achievement of occupational goals.

EO#2 Describes how one's behavior in both academic and nonacademic aspects of the school experience can affect achievement of occupational goals.

EO#3 Describes vocational and avocational implications of subjects he or she is taking.

EO#4 Acquires experience in a variety of tasks, including those typically stereotyped by one's sex.

MT#3 *Formulation of Tentative Career Goals*

PO#1 Identifies personal needs and sources of satisfaction which one should consider in planning a career.

EO#1 Describes the relevance of one's interests for broad occupational areas.

EO#2 Identifies those factors which will be significant for oneself in the selection of a career.

EO#3 Identifies from a variety of life styles those which at present appear to be most compatible with the kind of person one sees oneself to be.

EO#4 Identifies personal goals or values which might be satisfied through a combination of work, community, social, and family roles.

PO#2 Formulates a tentative educational and training plan to prepare oneself for a given occupational field or preferred vocation.

EO#1 Identifies an occupational field or preferred vocation and delineates steps necessary for entrance to that field or vocation.

EO#2 Identifies and seeks information about alternative occupations for which training, experience and interest requirements are sufficiently similar

to those of preferred occupations that they may serve as alternative career possibilities.

MT#4 *Acquiring Knowledge of Occupations and Work Settings*

PO#1 Increases the range of occupations of which one has knowledge and examines their functions and requirements.

EO#1 Makes occupational observations in various work settings as an essential part of one's introduction to and exploration into the work culture.

EO#2 Identifies the multiplicity of interests that may be satisfied in two or more broad occupational areas.

EO#3 Identifies occupations which have been created in the last decade to help solve society's problems.

EO#4 Identifies occupational areas increasingly open to both men and women.

PO#2 Gathers information concerning the factors necessary for success on the job.

EO#1 Debates the benefits of conforming behavior as opposed to individual initiative within the work organization.

EO#2 Identifies various sources of information on job success and describes how he can utilize them.

EO#3 Identifies social, political, economic and educational factors which may affect success in one's preferred occupations.

EO#4 Identifies discriminatory practices in employment which may affect success in preferred occupations.

PO#3 Describes those factors beyond one's control which operate within the modern work world to stimulate or retard vocational opportunities.

EO#1 Identifies events of international significance which affect vocational opportunities (wars, Sputnik, depressions).

EO#2 Describes the extent to which business and unions operate either on the basis of private interest or social responsibility.

EO#3 Describes sex stereotypes which may limit the opportunities for men and women in certain occupations.

EO#4 Describes special problems of minorities and women in relation to power and authority.

MT#5 *Acquiring Knowledge of Educational and Vocational Resources*

PO#1 Identifies and utilizes those resources available for gathering information about occupational characteristics.

EO#1 Describes resources available to one within the school for occupational information.

EO#2 Lists community resources for educational and occupational information and describes how one can utilize them.

EO#3 Identifies individuals in nontraditional occupations or work roles who might be an information resource or role model.

PO#2 Identifies and utilizes appropriate criteria for evaluating occupational information.

EO#1 Describes occupational resources available to one in terms of their accuracy, recency, and completeness.

EO#2 Identifies factors which may contribute to misinformation about occupations (occupational stereotypes, societal status rankings, incomplete research, outdated facts).

EO#3 Identifies attitudes of adults (parents, teachers, counselors, relatives, etc.) which influence occupational opportunity.

PO#3 Studies relationship between education and occupation.

EO#1 Describes a strategy for career decision-making.

EO#2 Identifies possible consequences of decisions facing one regarding senior high program.

EO#3 Identifies kind and amount of training needed for preferred occupational areas.

MT#6 *Awareness of the Decision-Making Process*

PO#1 Describes one's current life context as it relates to vocational decisions.

EO#1 Constructs a definition of a value and describes the valuing process.

EO#2 Identifies personal values, personal and family aspirations and family background factors which may influence his/her vocational decisions.

EO#3 Identifies the vocational and educational options available to him and describes their feasibility.

EO#4 Projects those factors which may inhibit or deter his/her educational or vocational progress.

PO#2 Describes how the expectations of others affect his career plans.

EO#1 Identifies significant others in his life and lists expectations they have of him.

EO#2 Describes how his present behavior is affected by the expectations of others.

EO#3 Identifies ways in which his career behavior affects the lives of those around him (parents, spouse, etc.).

PO#3 Projects decisions he will face in the future and describes means of facing them.

EO#1 Identifies decisions he must make prior to entering an occupation and lists options available to him.

EO#2 Identifies several ethical questions which confront workers in his preferred occupation(s) and describes the ways in which these people have formed acceptable solutions.

MT#7 *Acquiring a Sense of Independence*

PO#1 Identifies those characteristics which make him or her an unique individual.

EO#1 Describes one's physical, mental and social abilities and aptitudes.

EO#2 Identifies a wide range of social organizations and describes one's own potential as a contributing member of each.

EO#3 Identifies personal needs and values in relation to unique occupational preferences.

PO#2 Selects from the advice given by significant others that which one can utilize in planning a career.

EO#1 Identifies factors which affect the advice given by others (their own needs, misinformation).

EO#2 Describes similarities and differences between one's own needs and abilities and the needs and abilities of those giving one advice.

EO#3 Identifies possible conflicts in selecting occupational goals different from the expectations of significant others.

EO#4 Ranks own goal priorities in relation to goals of significant others for him or her.

PO#3 Demonstrates an ability to evaluate and cope with varying expectations so that he may satisfactorily perform in a given work situation.

EO#1 Describes the motivations of supervisors and coworkers in the work environment who may hold varying expectations regarding his present work performance.

EO#2 Ranks varying expectations according to their importance in successful completion of the work task and according to their importance in making the work situation a pleasant one.

Level 4 — Senior High, Grades 10-12

MT#1 *Reality Testing of a Self Concept*

PO#1 Describes his own abilities, aptitudes, and other personal resources in relation to the requirements for preferred occupations.

EO#1 Identifies both actual and potential personal resources.

EO#2 Describes the physical, mental, social, economic and educational requirements of his preferred occupations.

PO#2 Describes the social roles and social demands one must fulfill for successful performance in preferred occupation(s).

EO#1 Identifies the value one places on personal endeavor and achievement compared to societal values.

EO#2 Describes the roles of various workers in one's preferred occupation(s) noting the similarities and differences in how they perform and how successful they are.

EO#3 Describes the multiple roles one may fill and ways in which they affect and may be affected by occupational preference.

PO#3 Demonstrates success in coping with new social and work roles.

EO#1 Copes with authority exercised by others in ways

which lead to effective realization of his own personal goals.

EO#2 Handles his own position of authority in the work environment in ways which lead to effective realization of personal goals and development of others.

MT#2 *Awareness of Preferred Life Styles*

PO#1 Makes explicit one's own life style needs and priorities at this point in time.

EO#1 Describes how self characteristics relate to the responsibilities and tasks of preferred occupation(s).

EO#2 Identifies life style needs which may be in conflict with the demands of preferred occupation(s) and assigns them a priority ranking.

EO#3 Identifies several life patterns which might be followed by men and women.

EO#4 Discusses the significance of each in regard to the personal development and family life of men and women.

EO#5 Identifies from a variety of life styles those which seem most compatible with personal characteristics and needs.

EO#6 Projects consequences of preferred life style on family, leisure, and significant others.

PO#2 Describes the ways in which one's career choice may affect future life style.

EO#1 Describes life styles and ways of living associated with a few occupations in the broad occupational area or areas of his choice.

EO#2 Describes how different occupations and work settings vary in the degree of personal freedom to define one's role and activities.

EO#3 Explains how a vocation may contribute to a balanced and productive life.

MT#3 *Reformulation of Tentative Career Goals*

PO#1 Studies and projects a career plan that will enable one to pursue an occupation which will fulfill the personal needs and values one considers most important.

EO#1 Describes how the image one holds of a preferred occupation relates to information one receives

through occupational literature and real contacts with workers.

EO#2 Seeks information about the way one's preferred occupation(s) may affect life style.

EO#3 Describes power and authority relationships characteristic of preferred work setting and occupation.

EO#4 Identifies 3 work environments compatible with his/her needs.

PO#2 Describes how one's preferred occupation can be a source of satisfaction and human expression of self.

EO#1 Describes the ways in which one's preferred work contributes to the welfare of society.

EO#2 Identifies personal qualities which can be developed and expressed through one's work.

MT#4 *Increasing Knowledge of and Experience in Work Settings and Occupations*

PO#1 Describes the interdependency of all workers and work talents in contributing to the well-being of the community.

EO#1 Describes the roles required of workers in various occupations and assesses the compromises involved in performing these roles.

EO#2 Investigates and discusses the ways in which management, labor and government interact to influence work life.

EO#3 Demonstrates the ability to depend on others and to be depended upon in the work environment.

PO#2 Describes work as a principal instrument for coping with and changing one's own environment.

EO#1 Describes changes within the modern work society which have affected the traditional division of labor by sex.

EO#2 Describes how one can work for social change within one's preferred occupation(s).

EO#3 Identifies outcomes of one's work which assist one in coping with the environment.

EO#4 Identifies discriminatory practices in the work environment which one might help to change.

EO#5 Describes women's changing roles in the labor force.

EO#6 Lists five career-family or life style patterns open to men and women.

EO#7 Examines labor force data on women and men in different occupations.

PO#3 Selects potential employers and locates suitable job opportunities.

EO#1 Describes the roles required of workers in one's preferred occupations and identifies compromises one would have to make to fulfill those roles.

EO#2 Elicits information about what persons with experience and training in one's preferred occupations are receiving as compensation.

PO#4 Describes how the work contribution of women is as socially significant as that of men.

EO#1 Participates in and observes situations in which women are found in roles other than traditional ones.

EO#2 Gathers information concerning vocational opportunities for women in various areas of work.

MT#5 *Acquiring Knowledge of Educational and Vocational Paths*

PO#1 Describes the quality of education, job training, or work experience necesary in preparation for a preferred occupation.

EO#1 Seeks information concerning the content and requirements of educational and training courses that may facilitate occupational goals.

EO#2 Identifies sources of financial aid for further education or training and the requirements or restrictions of specific assistance.

EO#3 Interprets census and occupational outlook data and draws conclusions about employment trends in various occupations.

EO#4 Identifies the various job ladder or career progression possibilities of a few jobs in several broad occupational areas.

PO#2 Seeks information about what skills are needed to get a job.

EO#1 Identifies skills necessary for success in preferred occupation(s).

EO#2 Identifies and practices appropriate behavior for an employment interview.

EO#3 Identifies information that should be included in a resume and/or application form.

MT#6 *Clarification of the Decision-Making Process as Related to Self*

PO#1 Projects and describes the factors which may influence one's career decisions.

EO#1 Compares immediate rewards with long-term rewards in several occupations.

EO#2 Describes potential economic opportunities in relation to personal satisfactions in considering different occupations.

EO#3 Identifies alternatives and possible outcomes of each.

EO#4 Projects the potential satisfactions of preferred occupations in relation to priority values and needs.

EO#5 Identifies alternate or "back-up" occupations if first preferences do not work out.

PO#2 Accepts responsibility for making occupational choices and moving towards occupational goals.

EO#1 Predicts the effect one's career decisions may have upon significant others.

EO#2 Identifies the personal compromises one may have to make in order to attain one's preferred occupational goals.

MT#7 *Commitment with Tentativeness within a Changing World*

PO#1 Identifies the changing meanings of work over time and between cultures.

EO#1 Examines social and economic trends for their potential effect upon broad occupational fields and upon opportunities within preferred occupations.

EO#2 Describes how a person's career may be a means to effect social change.

EO#3 Examines different career patterns of women and men and their potential effect on family patterns and life styles.

EO#4 Compares the work ethic at the turn of the century with contemporary work ethic(s).

PO#2 Makes career plans which take into account the fact that technology and automation influence change and may create the need for transferable skills.

EO#1 Describes the extent to which technological change may affect the employment opportunities and role requirements of preferred occupation(s).

EO#2 Identifies skills or knowledge utilized in the preferred occupation(s) which may transfer to another occupation.

PO#3 Identifies the possible sources of the attitudes toward women held by oneself and the society in which one lives.

EO#1 Reads and discusses relevant literature dealing with women, their traditional roles, and their place in the world of work.

EO#2 Discovers elements within our culture which have contributed to the continuance of the traditional view of women.

EO#3 Investigates the opinions that contemporary women hold of themselves and their place in the world of work.

APPENDIX D

Annotated Career Education References and Resources

I. CAREER EDUCATION REFERENCES — GENERAL

Position paper on career development. AVA-NVGA Commission on career guidance and vocational education, August 1973.

This paper examines the issues and principles of career development and explicates definitions, roles, and approaches for dealing with them.

Bailey, L. J. (Ed.). *Facilitating career development: An annotated bibliography, II.* Springfield, Illinois: Division of Vocational and Technical Education, State of Illinois, 1974: Available on request.

This bibliography is an implementation-oriented resource focusing on programs, practices, and techniques which are operational or which have demonstrated potential for enhancing the process of career development. It is a follow-up publication to *Facilitating career development: An annotated bibliography,* 1970.

Bailey, L. J. and Stadt, R. *Career education: New approaches in human development.* Bloomington, Illinois: McKnight Publishing Company, 1973.

A thorough examination of career development theory and research, along with a presentation of the fundamentals of curriculum development, and a model curriculum are included in this book. The curriculum blends self-concept theory with behavioral objectives in a student-centered process-oriented approach to education.

Begle, E. et al. *Career education: An annotated bibliography for teachers and curriculum developers.* Palo Alto, California: American Institutes for Research in the Behavioral Sciences, 1973. (ED 073 297) EDRS Price MF $0.65 HC $13.16.

The first product of the American Institutes for Research Career Education Curriculum Development Project, this bibliography contains a theoretical foundation and selected review designed to assist teachers and curriculum developers in the definition and implementation of career education in the schools.

Drier, H. N. *K-12 Guide for integrating career development into local curriculum.* Worthington, Ohio: Charles A. Jones Publishing Company, 1972.

The state of Wisconsin developed this guide for teachers, which contains several models for career education programs, objectives, and lists of resources.

Herr, E. *Vocational guidance and human development.* Boston: Houghton Mifflin Co., 1974.

This NVGA Decennial Volume reports new knowledge and practices in the area of human growth and development since 1964, and examines implications for the future of vocational guidance.

Kroll, A., Dinklage, L., Lee, J., Morley, E., and Wilson, E. *Career development: Growth and crisis*. New York: John Wiley and Sons, Inc., 1970.

This work explores the theoretical structure underlying career development as a life-long process, covering post-adolescent career development more thoroughly than most such works.

K-12 Career education guide. Sheboygan, Wisconsin: Lakeshore Technical Institute, 1971. (ED-61 429) EDRS Price MF $0.65 HC $16.45.

This curriculum guide describes basic career concepts and general objectives taken from the Wisconsin State Career Curriculum Model, which are grouped by grade level (K-3, 4-5, 7-9, 10-12) and subject area. Each concept is accompanied by behavioral objectives, classroom activities, lists of resources for activities, and evaluation procedures.

Selland, L. *A statewide program in developmental vocational guidance (K-12) and occupational preparation for the changing world of work: Final report*. Bismarck, North Dakota: North Dakota State Board for Vocational Education, State Office Building, 900 East Boulevard. 1973.

This report describes North Dakota's Exemplary Program in Career Education, and includes resources and sample activities for integrating career education into the curriculum (K-12).

Super, D. E., Straishevsky, R., Matlin, N., and Jordaan, J. *Career development: Self-concept theory*. New York: College Entrance Examination Board, 1963.

Tiedeman, D. and O'Hara, R. *Career development: Choice and adjustment*. New York: College Entrance Examination Board, 1963.

These two monographs are both historically significant and a useful introduction to the novice in career education.

II. CAREER EDUCATION RESOURCES — ELEMENTARY LEVEL

About me. Chicago, Illinois 60611. Encyclopedia Britannica Educational Corporation, 425 N. Michigan Ave. (Teacher's Guide—$3.95, Student book — $.69).

This a self-concept program, not explicitly directed to career education, but could easily be refocused.

An elementary guide in career development. Roseville, Minnesota: Area Schools Career Development Project, K-6, December, 1972.

Career development for children project, Levels I, II, III. Bloomington, Illinois: McKnight Publishing Company, Fall, 1974.

These materials are designed to provide children with an awareness of their unique functions in society, stressing the cooperative nature of human work activity while emphasizing the potential for self-expression and self-fulfillment in the world of work. They include a teacher's guide, workbooks, games, study prints and filmstrips.

Developing understanding of self and others (DUSO). Circle Pines, Minnesota: American Guidance Series, Inc. D-1 (K-2) $95, and D-2 (2-4) $98.

Designed for students K-6, DUSO consists of two kits, each containing materials for a one-year program including puppets, stories, role playing activities, and a teacher manual. The objective of DUSO and the development of a positive self-concept and value clarification. DUSO is not a career development program, and should be used in conjunction with world of work activities.

Dimensions of personality. Dayton, Ohio 45402: Pflaum/Standard, 38 West Fifth Street.

This series, while not specifically relevant to career education, does focus on attitudes and values, and can be used to supplement world-of-work activities in a career development program.

EPDA Institute. *Career development in the elementary school curriculum*. Minneapolis: University of Minnesota: Departments of Distributive Education and Counseling and Student Personnel Psychology, 1971.

This K-6 guide includes a sequenced set of performance and enabling objectives relating to vocational development tasks at the primary and intermediate levels accompanied by suggested learning activities and resources which may be integrated with subject matter areas.

Focus on self-development: Stage One — Awareness (K-3); Stage Two — Responding (2-4); Stage Three — Involvement (3-6). Chicago: Science Research Associates, 1970.

Focus on self-development is a 3-stage multi-media program designed to lead the child toward an understanding of self, of others, and of the environment and its effects. These objectives are approached through group discussion, role playing, games, projects with accompanying filmstrips, records, photoboards, student booklets, and leader's guides.

Goldman, R. M. *Roles people play* kit. Orinda, California: Kiablo Valley Education Project; Concord, California: Mount Diablo Unified School District; Morage, California: Saint Mary's College, 1971.

This kit was prepared for classroom experimentation employing the role instruction approach to social studies and occupational instruction at

elementary and secondary levels. The kit includes basic concept cards, role information cards, role-study exercises, role scripts, and a guide to evaluation of student attitudes toward specific roles.

Hansen, L., Klaurens, M., Tennyson, W. and Wall, F. *Project TECE, Teacher education for career education, Module II Preparing elementary teachers for career education through curriculum.* University of Minnesota, Minneapolis: Pupil Personnel Services Section, Minnesota Department of Education, 1973.

This module, designed for preservice teacher education, suggests ways a teacher might integrate career education into subjects at the primary and intermediate levels, including illustrative lessons for each grade level.

Mothers work too. Mahweh, New Jersey: Educational Reading Service, 1972. (Filmstrips).

Peterson, Marla and others. *Enrichment of teacher and counselor competencies in career education, K-6: An annotated bibliography.* Charleston, Illinois: Center for Educational Studies, School of Education, Eastern Illinois University, 1972. (Disseminated by The Illinois Career Education Curriculum Management Center, Board of Vocational Education and Rehabilitation, Division of Vocational and Technical Education, State of Illinois).

This bibliography contains a comprehensive review of commercially-available materials, primarily audio-visual or multi-media items.

Workers we know: Programmed work awareness kit, Level B. Moravia, N.Y. 13118: Chronicle Guidance Publications, Inc. ($150 for all materials and workbooks for 32 students).

This kit is designed for use by classroom teachers in the early elementary grades. It consists of thirty-three weekly units, based on principles of developmental psychology as expressed by Piaget, Erik Erikson, and Robert Havighurst. The kit includes puppets, picture charts, playing cards, game boards, records, student books, and a teacher's manual.

Senesh, L. *Our working world* (Grades 1-3). Chicago, Ill.: Science Research Associates, Inc. 1972.

Our working world consists of texts, activities, and filmstrips which present the social sciences in the framework of the child's everyday experiences, focusing on decision-making and problem solving. Each grade has a theme: first grade — the family, second grade — the neighborhood, third grade — the city.

III. CAREER EDUCATION RESOURCES — JUNIOR HIGH LEVEL

Benson, A. *A resource guide for career development in the junior high school.* St. Paul, Minnesota: Pupil Personnel Services Section, Min-

nesota Department of Education, 1972. (ED 067 469) EDRS Price MF $0.65 HC $9.87.

This guide provides learning activities grouped by subject area and grade level, accompanied by resource lists.

Career development activities for grades 5, 6, and 7. Abington, Pennsylvania: Abington School District, 1968 (ED 022 219).

These materials were developed to be used by teachers or counselors in language arts and social studies programs and in guidance activities. They use simulation, gaming, role-playing, decision-making, and dramatics to actively involve students in processes which are useful in making career decisions. The fifth grade unit focuses on interests, the sixth grade unit on dealing with changes students face as they enter junior high school, and the seventh grade unit on awareness of values and the role they play in decision-making.

Choosing your career. Chicago, Illinois: Coronet Films, 65 E. South Water Street. (Programmed learning text).

This program introduces students to the concept of career, and takes them through a process of evaluating their interests and abilities and the part they play in career choice. It includes a data summary sheet for each student to use in recording his self-estimates.

Holland, J. *The self-directed search.* Palo Alto, California 94306: Consulting Psychologists Press, Inc., 577 College Avenue, Box PGA, 1970.

This instrument uses the students' daydreams, activities, competencies and occupational interests to help them identify occupations to explore. It utilizes Holland's theory of personality types to assign each student a three-letter code. An "Occupations Finder" is provided which lists the most common occupations by their three-letter codes. This instrument may be used with senior high students and adults, as well as at the junior high level.

Man: His life and work — A career orientation manual for teachers of seventh and eighth grade social studies. Cincinnati, Ohio: Cincinnati Public Schools, 1970 (ED 050 005) EDRS Price MF $0.65 HC $6.58.

This manual includes over 100 activities related to American history, urban living, and the social sciences. They are designed to provide meaningful career information in the context of specific subject matter instruction, encourage greater self-understanding, and provide opportunities for student simulation of occupational roles.

My career guidebook. New York, N.Y. 10022: Bruce Publishing Co., A Division of Benzinger, Bruce & Glencoe, Inc., 866 Third Avenue, 1967.

In this workbook the students outline plans for the future, taking into consideration their interests, abilities, and other resources.

My educational plans (7-9). Chicago, Illinois 60611: Science Research Associates, Inc., 259 East Erie Street.

This workbook focuses on the educational aspects of career, outlining the various kinds of schooling available, along with the uses of each. The students make plans about what to take in school.

Project ABLE student vocational plan. Pittsburgh, Pennsylvania: American Institutes for Research (ED 030 720).

This plan includes forms and data to be used by 7th, 8th, and 9th grade students in activities related to self-evaluation, investigation of the world of work, and the comparison of their credentials to educational and vocational opportunities.

You: Today and tomorrow. Princeton, New Jersey: Educational Testing Service, 1959.

Although this workbook is outdated in some respects, it does contain activities which can help students' in their self- and occupational-exploration.

IV. CAREER EDUCATION RESOURCES — HIGH SCHOOL

Boocock, S. S. *Life career game*. Baltimore, Maryland: Academic Games Associates, 3505 North Charles Street, 1968. ($10)

Students plan life and career of a hypothetical person, and find out how well their plan works.

Byrn, D. K. *Career decisions*. Washington, D.C.: National Vocational Guidance Association, 1607 New Hampshire Avenue N.W., 1969. ($0.50)

This booklet provides a thorough exposition of the principles and concerns of career development as it relates to high school students.

Cosgrave, G. P. *Career work book*. Toronto, Ontario: Guidance Centre, Faculty of Education, University of Toronto, 1973, M4W 2K8.

This book provides an opportunity for the students to work out their goals and plans by which they can achieve them. It is designed to stimulate students to examine their capacities in relation to the opportunities available to them.

Feingold, S. N. and Sendloff, S. *Occupations and careers*. St. Louis: Webster Division, McGraw-Hill Book Company, 1969.

This text focuses on the occupational aspects of career. It is thorough and readable.

Gelatt, H. B. and others. *Deciding I* and *Decisions and outcomes*. New York: College Entrance Examination Board, 1972, 1973.

These materials deal with decision-making in general, rather than specifically to career decision-making. *Deciding I* was designed for junior high students, but may be too complex for that level. Both packages contain innovative activities which can be implemented within a career education program.

Helling, C. (Ed.). *Career education discipline resource handbook*, Volume I & II. Robbinsdale, Minnesota: Robbinsdale Independent School District 281, 1972.

Developed by teachers and counselors, this handbook includes sample units demonstrating the career development process.

Job experience kits (8-12). Chicago, Illinois: Science Research Associates, 259 East Erie Street, 1970.

These kits are available for a variety of occupations, and give students the opportunity to perform actual or simulated job tasks.

Kenneke, L. J. *Career development activities*. Indianapolis, Indiana: Howard W. Sams Co., Inc., 4300 West 62nd Street, 1973. ($4.50)

A wide variety of pencil-and-paper and group activities are included in this workbook. They cover most aspects of career development, at varying levels of complexity.

Life/Career development system. Ann Arbor, Michigan 48106: Human Development Services, Inc., Box 1403. ($600 per kit, plus training).

This system contains nine (more are projected) career development modules available for use to people who complete a 2-3 day workshop in their use and agree to other conditions. The modules include individual and group activities on such topics as self, values, goals, options, barriers, and information.

Search for values, Dimensions of personality series. Dayton, Ohio 45402: Pflaum/Standard, 38 West Fifth Street.

This kit contains an instructor's book and ditto masters for student activities related to such themes as time, completion, authority, personal space, commitment, relationships and images.

Shertzer, B. E. *Career exploration and planning*. Boston, Massachusetts: Houghton Mifflin Company, 1973. (Text and workbook).

The text presents an orientation to school, to understanding self and others, and to career development. As students examine themselves and occupations, they are asked to make specific vocational plans in the workbook. They also simulate job applications and interviews.

Simon, S. B. and Kirschenbaum, L. W. *Value clarification: A handbook of practical strategies for teachers and students*. New York, N.Y.: Hart Publishing Company, 1972.

This book provides a variety of techniques for helping students confront their own values and the values of others.

Valuing: Exploration and discovery. Chicago, Illinois 60657: Argus Communications, 3505 N. Ashland Avenue.

This kit uses tapes, visuals, group interaction, and role playing to help students explore values, and it focuses on the development of trust, on growth, and authenticity.

OTHER MINNESOTA CAREER EDUCATION MATERIALS

A Bibliography of Selected Career Guidance Materials.

A Resource Guide for Career Development in the Junior High School.

A Resource Guide for Career Development in the Senior High School. *(out of print)*

Career Awareness — K-6. *Reprint of Owatonna Materials.*

Career Development Resources Guide.

Career Development Resource Materials K-6. *Reprint of Roseville Materials.*

Career Development Through English Experiences.

Career Development Through Home Economics Experiences.

Career Development Through Industrial Education Experiences.

Career Resource Center: Putting It All Together.

Career Education in the Elementary School.

Foreign Language for Careers Involving Work With Foreign Visitors.

Foreign Language for a Variety of Careers.

Implementing Career Education Programs.

Music in Careers.

Personalized Education Using Group Methods.

Project TECE: Teacher Education for Career Education. Module 1.

Seven Learning Packages on Career Education *covering the following aspects: Self-Concept Exploration, Women and the World of Work, Satisfactions and Rewards of Work, Value Identification, Life Styles and Work, The Social Contribution of Work, Significant Others. (out of print)*

What? Where? Why? Career Guidance, Counseling & Placement: A Developmental Self-Concept Approach.